



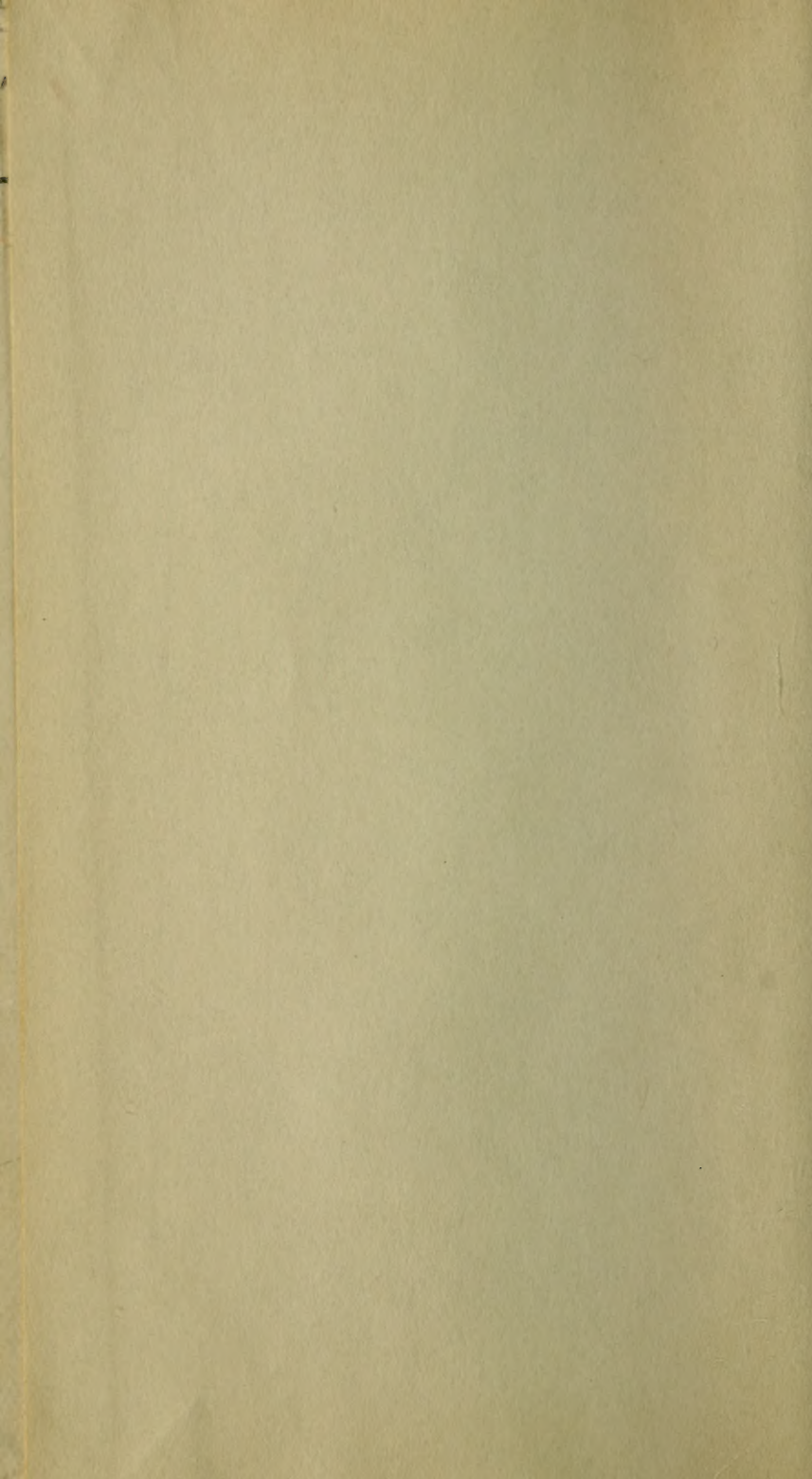
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FOR THE PEOPLE  
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FOR SCIENCE

LIBRARY  
OF  
THE AMERICAN MUSEUM  
OF  
NATURAL HISTORY













LIBRARY  
OF THE  
AMERICAN MUSEUM  
CATALOGUE

OF

COLUBRINE SNAKES

IN

THE COLLECTION

OF THE

BRITISH MUSEUM. (not list)

Dept of Zoology.

BY

DR. ALBERT GÜNTHER.

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## P R E F A C E.

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THE object of this Catalogue is to give a description of all the species of Colubrine Snakes in the Collection of the British Museum, with an indication of their history and origin, and an account of the species, to be found in other Collections, which are desiderata to the National Museum.

Dr. Günther observes, "In a part of the Animal Kingdom, which, like the non-venomous Colubrinæ, shows so many forms intermediate between the most remote extremes, the systematic arrangement is a difficult task, the more so as those forms do not offer any other well-marked characters. An attempt to base the distribution of these animals into families on a single character, instead of on a combination of external, anatomical and physiological characters, can never give a satisfactory result; and the seventh volume of the *Erpétologie générale*, by MM. Duméril and Bibron, consequently offers a system far from

PREFACE.

ing a natural one. Having defined these snakes as 'Colubrinæ without grooved or perforated teeth in front,' we are obliged to abandon the principle of dentition for further subdivision, there being no other natural character which corresponds to its variations; therefore I consider the principles introduced by Boie and Schlegel to be the best upon which to base a natural arrangement, and I have followed the system laid down in the *Essai*. One great merit of the *Erpétologie générale* I well know how to appreciate:—The characters of the dentition offer in a great many cases a decisive method for *distinguishing the species*; but as regards the combination of the species into genera and families, it is of no greater importance than any other external character by itself. But still I am always glad to use the dentition as one of the characters of genera or families wherever that is possible, namely wherever it corresponds with the mode of life, the general habits and the 'physiognomy.' Schlegel's two large genera, *Coluber* and *Herpetodryas*, include such a number of intermediate forms, that, for want of other means of dividing them into smaller groups, I have employed the principle of dentition; but I am far from being satisfied with it, except in the one genus *Zamenis*, which is otherwise well defined even by its geographical distribution. I am perfectly aware that the characters of my families (Schlegel's genera) are not of absolute value; but where nature has not created *distinctly separated*



families, the systematist must not establish them. I think that neither in the families nor in the genera here adopted, are there such heterogeneous forms comprised, as in the 8th, 10th, 11th and 12th families of the '*Serpens non venimeux*' of Duméril, and in the 2nd, 3rd, 5th and 6th of his '*Opisthoglyphes*;' nor are the most allied forms so widely separated, as we often find to be the case in the same parts of that work.

"The chief object of every branch of Zoology I consider to be the discerning of species, and I object to the tendency of those zoologists who establish a new species for almost every individual, and so destroy the entire basis of our science. In comprising sometimes many varieties under one species, I have no fear of going too far, as I think it preferable to characterize as a variety a form, which may afterwards prove a real species, rather than overburden science with nominal species. The number of specimens of Colubrine Snakes in the British Museum Collection (3100) has afforded me ample means for distinguishing the species; and I have again convinced myself, that it is easier to characterize a peculiar form as a new species, than to recognize it as a variety.

"In accordance with the plan adopted by Dr. Gray, I have prefaced each diagnosis with the synonymy of the species,—a task which would have been the most tiresome part of the work, but for Dr. Gray's kindness in giving me the free use of his own MSS. I have found

many new species named and described therein; but I have introduced into the system the names of such snakes only as have not been described in the meanwhile by other authors."

This Part completes the Catalogue of Snakes.

British Museum,  
1 March 1858.

JOHN EDWARD GRAY.

# GEOGRAPHICAL INDEX.

## PALÆARCTIC REGION.

(Europe, Shores of the Mediterranean, Western and Central Asia\*.)

Calamaria coronella (Persia).	Rhinechis scalaris.
Ablabes modestus.	Coluber æsculapii.
Tachymenis vivax.	quadri-lineatus.
Coronella austriaca.	Elaphis dione.
giron-dica.	sauromates.
cucullata.	quater-radiatus.
Tropidonotus natrix.	Zamenis.
hydrus.	Cælopeltis lacertina.
viperinus.	

## ÆTHIOPIAN REGION.

(Africa, South of the Atlas.)

Rhinostoma cupreum.	Psammophis crucifer.
occipitale.	sibilans.
Homalosoma.	elegans.
Simotes diadema.	Dasy-peltis.
Ablabes rufulus.	Bucephalus capensis.
Psammophylax rhombeatus.	Hapsidophrys.
Coronella multimaculata.	Chrysopelea præornata.
olivacea.	Alætulla smaragdina.
fuliginoides.	chenonii.
semiornata.	Dryophis kirtlandii.
cana.	Langaha (Madagascar).
Grayia silurophaga.	Leptodeira rufescens.
Heterodon madagascariensis	Dipsas valida.
(Madagascar).	globiceps.
Meizodon regularis.	fasciata.
Philodryas goudotii (Madagas-	pulverulenta.
car).	Dipsadoboa unicolor.

\* Cfr. *Sclater* in Proc. Linn. Soc. 1858, p. 130. The Ophidians of Japan belong to the fauna of the East Indian Region.



Simocephalus.  
 Lamprophis.  
 Alopecion.  
 Lycophidion.  
 Metoporphina.  
 Boodon.

Holuropholis.  
 Naja haje.  
 Cyrtophis scutatus.  
 Elaps hygiæ.  
 Chloroëchis.  
 Atractaspis.

## INDIAN REGION.

(Southern Asia and East Indies with Japan.)

Calamaria.  
 Rhabdosoma longicaudatum.  
     leporinum.  
     microcephalum.  
     oxycephalum.  
 Brachyorrhos albus.  
 Aspidura brachyorrhos.  
 Haplocercus ceylonensis.  
 Elapoidis fuscus.  
 Trachischium rugosum.  
 Oligodon.  
 Simotes.  
 Ablabes melanocephalus.  
     collaris.  
     baliodeirus.  
     geminatus.  
 Tomodon strigatus.  
 Xenodon (with keeled scales).  
 Tropidonotus quincunciatus.  
     spilogaster.  
     annularis.  
     vittatus.  
     stolatus.  
     subminiatus.  
     trianguligerus.  
     chrysargus.  
     chrysargoides.  
     tigrinus (Japan).  
     cerasogaster.  
     auriculatus.  
     vibakari (Japan).  
 Coluber rufodorsatus.  
     conspicillatus (Japan).  
     mandarinus.  
     callicephalus.  
 Elaphis quadrvirgatus (Japan).  
     virgatus (Japan).  
     subradiatus.

Cynophis helena.  
 Spilotes radiatus.  
     melanurus.  
     reticularis.  
 Zamenis ventrimaculatus.  
 Coryphodon fasciolatus.  
     hexahonotus.  
     korros.  
     blumenbachii.  
     fuscus.  
     carinatus.  
 Cyclophis major.  
     frenatus.  
     calamaria.  
     tricolor.  
 Gonyosoma.  
 Euophrys modestus.  
 Psammodynastes.  
 Chrysopelea rhodopleuron.  
     rubescens.  
     ornata.  
 Dendrophis picta.  
     formosa.  
     caudolineata.  
 Dryophis tropidococyx.  
     prasina.  
 Passerita mycterizans.  
 Eudipsas cynodon.  
 Dipsas multimaculata.  
     dendrophila.  
     boops.  
     drapiezii.  
     irregularis.  
     forsteni.  
 Dipsadomorphus trigonatus.  
     ceylonensis.  
 Leptognathus indicus.  
 Amblycephalus boa.

Pareas.  
 Hologerrhum philippinum.  
 Lycodon.  
 Tetragonosoma.  
 Leptorhytaon jara.  
 Odontomus nympha.  
 Ophites.  
 Cercaspis carinatus.  
 Cyclocorus lineatus.

Hamadryas elaps.  
 Bungarus.  
 Naja tripudians.  
 Elaps intestinalis.  
 gracilis.  
 bivirgatus.  
 univirgatus.  
 calligaster.  
 maculiceps.

## AUSTRALIAN REGION.

(Australia and Islands of the Pacific.)

Coronella australis.  
 Tropidonotus picturatus.  
 Dendrophis punctulata.  
 picta.  
 Dipsas fusca.  
 Glyphodon.

Diemansia.  
 Hoplocephalus.  
 Pseudechis porphyriacus.  
 Pseudonaja nuchalis.  
 Brachysoma.  
 Vermicella annulata.

## SOUTH AMERICAN REGION.

(South and Central America.)

Amblymetopon variegatum.  
 Rhinostoma schlegelii.  
 nasuum.  
 Rhabdosoma semidoliatum.  
 badium.  
 crassicaudatum.  
 maculatum.  
 elaps.  
 lineatum.  
 Streptophorus.  
 Homalocranium.  
 Arrhyton.  
 Simotes coccineus.  
 Ablabes occipitalis.  
 Tachymenis chilensis.  
 Coronella decorata.  
 fissidens.  
 jaegeri.  
 anomala.  
 elegans.  
 doliata.  
 Liophis.

Stenorhina.  
 Erythrolamprus.  
 Hypsirhynchus ferox.  
 Tomodon dorsatus.  
 Xenodon (with smooth scales).  
 Tropidonotus grahamii.  
 medusa.  
 Heterodon d'orbignyi.  
 Spilotes corais.  
 variabilis.  
 pæcilostoma.  
 pæcilonotus.  
 Coryphodon pantherinus.  
 Herpetodryas.  
 Philodryas.  
 Dromicus (West Indies).  
 Psammophis lineatus.  
 Ahætulla liocerus.  
 mexicana.  
 catesbyi.  
 oxyrhyncha.  
 Dryophis argentea.

*Dryophis acuminata.*  
*fulgida.*  
*fronticineta.*  
*Thamnodynastes.*  
*Leptodeira annulata.*  
*Eudipsas leucocephalus.*  
*Dipsas cenchoa.*  
*Dipsadomorphus biscutatus.*  
*Rhinobothryum lentiginosum.*  
*Leptognathus mikani.*  
*nebulatus.*  
*variegatus.*  
*pavoninus.*

*Leptognathus catesbyi.*  
*Tropidodipsas fasciata.*  
 (Hemidipsas.)  
*Dipsadoboa maculata.*  
*Seytale coronatum.*  
*Oxyrhopus.*  
*Elaps corallinus.*  
*occipitalis.*  
*surinamensis.*  
*lemniscatus.*  
*fulvius.*  
*epistema.*

## N.E. ARCTIC REGION.

(North America.)

*Conopsis nasus.*  
*Conocephalus striatulus.*  
*Carphophis amœna.*  
*Simotes coccineus.*  
*Ablabes punctatus.*  
*purpureocauda.*  
*Coronella sayi.*  
*Tropidonotus saurita.*  
*ordinatus.*  
*fasciatus.*  
*cyclopion.*  
*leberis.*  
*Ischnognathus.*  
*Heterodon platyrhinos.*  
*niger.*

*Heterodon catesbyi.*  
*Pituophis.*  
*Coluber quadrivittatus.*  
*getulus.*  
*guttatus.*  
*spiloides.*  
*eximius.*  
*Coryphodon constrictor.*  
*testaceus.*  
*Herpetodryas flagelliformis.*  
*flavigularis.*  
*Cyclophis æstivus.*  
*vernalis.*  
 (Elaps fulvius.)



# SYSTEMATIC INDEX.

The names of those authors are marked, who first gave the *specific* denomination.

The numbers state, how many specimens are in the British Museum Collection, or whether that Collection is in want of the species.

The new species are marked with a.\*.

## Fam. I. CALAMARIDÆ.

### Calamaria, *Boie*.

1. *linnei*, *Boie*. . . . . 12
2. *quadrinaculata*, *D. et B.* . . . . 2
- 2 *a. modesta*, *D. et B.* (App.) . . . . 1
3. *albiventer*, *Gray* . . . . . 4
4. *gervaisii*, *D. et B.* . . . . 5
5. *lumbricoidea*, *Boie* . . . . . 3
6. *schlegelii*, *D. et B.* . . . . 2
7. *temminckii*, *D. et B.* . . . . 1
8. \**grayi*, *Gthr.* . . . . 2
9. *coronella*, *Schleg.* . . . . 1

### \**Conopsis*, *Gthr.*

1. \**nasus*, *G.* . . . . 1

### \**Amblymetopon*, *Gthr.*

1. \**variegatum*, *G.* . . . . 2

### *Rhinostoma*, *Fitz.*

1. *schlegelii*, *Gthr.* . . . . 0
2. *nasuum*, *Oppel* . . . . . 4
3. \**eupreum*, *Gthr.* . . . . 4
- (4. *occipitale*, *Hallow.* . . . . 0)

### *Rhinosimus*, *D. et B.*

1. *guerini*, *D. et B.* . . . . 0

### *Rhabdosoma*, *D. et B.*

1. *semidoliatum*, *D. et B.* . . . . 3
2. *badium*, *Boie* . . . . . 3
3. *crassicaudatum*, *D. et B.* . . . . 3
- 3 *a. \*maculatum*, *Günther* (App.) . . . . . 3
- 3 *b. \*elaps*, *Gthr.* (App.) . . . . 1
4. *lineatum*, *D. et B.* . . . . 11
5. *longicaudatum*, *D. et B.* . . . . 1
6. \**leporinum*, *Gthr.* . . . . 2

### *Rhabdosoma*.

7. \**microcephalum*, *Gthr.* . . . . 1
8. \**oxycephalum*, *Günther* (App.) . . . . . 1

### *Rhabdion*, *D. et B.* (App.)

1. *forsteni*, *D. et B.* . . . . 2

### *Brachyorrhos*, *Kuhl.*

1. *albus*, *L.* . . . . 1

### *Aspidura*, *Wagl.*

1. *brachyorrhos*, *Boie* . . . . 16

### \**Haplocercus*, *Gthr.*

1. \**ceylonensis*, *G.* . . . . 2

### *Elapoidis*, *Boie.*

1. *fuscus*, *B.* . . . . 1

### *Streptophorus*, *D. et B.*

1. *drozii*, *D. et B.* . . . . 6
2. *sebæ*, *D. et B.* . . . . 11
3. *bifasciatus*, *D. et B.* . . . . 1

### *Conocephalus*, *D. et B.*

1. *striatulus*, *L.* . . . . 5

### *Carphophis*, *D. et B.*

1. *amœna*, *Say* . . . . . 5

### *Homalocranion*, *D. et B.*

1. *melanocephalum*, *L.* . . . . 17
2. *semicinctum*, *D. et B.* . . . . 1

### \**Arrhyton*, *Gthr.* (App.)

1. \**tæniatum*, *Gthr.* . . . . 1

### *Homalosoma*, *Wagl.*

1. *lütrix*, *L.* . . . . 29
2. *variegatum*, *Peters* . . . . 0

### *Oligodon*, *Boie.*

1. *subquadratus*, *D. et B.* . . . . 5
2. *subgriseus*, *D. et B.* . . . . 13

## Oligodon.

3. sublineatus, *D. et B.* . . . 7  
 4. subpunctatus, *D. et B.* . . . 0  
 5. dorsalis, *Gray* . . . . 1

## Fam. II. CORONELLIDÆ.

Simotes, *D. et B.*

1. octolineatus, *Schneid.* . . 14  
 2. binotatus, *D. et B.* . . . 2  
 3. russellii, *Daud.* . . . . 14  
 4. purpurascens, *Schleg.* . . 13  
 5. coccineus, *Blumenb.* . . . 12  
 6. diadema, *D. et B.* . . . . 2

Ablabes, *D. et B.*

1. modestus, *Martin.* . . . 39  
 2. melanocephalus, *Gray* . . . 3  
 3. collaris, *Gray* . . . . . 23  
 4. punctatus, *L.* . . . . . 4  
 5. \*occipitalis, *Gthr.* . . . . 2  
 5 a. \*purpureocauda, *Gthr.*

(App.) . . . . . 2

6. baliodeirus, *Boie* . . . . . 2  
 7. geminatus, *Oppel* . . . . . 2  
 8. rufulus, *Licht.* . . . . . 9

\*Trachischium, *Gthr.*

1. \*rugosum, *G.* . . . . . 4

Psammophylax, *Fitz.*

1. rhombeatus, *L.* . . . . . 43

Tachymenis, *Wieg.*

1. vivax, *Fitz.* . . . . . 2  
 2. chilensis, *Schleg.* . . . . 7

Coronella, *Laur.*

1. austriaca, *Shaw* . . . . . 5  
 2. girondica, *Daud.* . . . . . 1  
 3. cucullata, *D. et B.* . . . . 9  
 4. \*decorata, *Gthr.* . . . . . 2  
 5. \*fissidens, *Gthr.* . . . . . 8  
 6. \*bipunctata, *Gthr.* . . . . 1  
 7. \*jaegeri, *Gthr.* . . . . . 2  
 8. \*anomala, *Gthr.* . . . . . 1  
 9. elegans, *Tschudi* . . . . . 1  
 10. multimaculata, *Sm.* . . . . 4  
 11. olivacea, *Peters* . . . . . 2  
 12. \*fuliginoides, *Gthr.* . . . . 3  
 13. semiornata, *Peters* . . . . 0  
 14. cana, *L.* . . . . . 13  
 15. \*australis, *Gthr.* . . . . . 1  
 16. sayi, *Dekay* . . . . . . 8  
 17. doliata, *L.* . . . . . 20

Liophis, *Wagl.*

1. bicinctus, *Hermann* . . . . 2  
 2. cobella, *L.* . . . . . 59  
 3. merremii, *Wied* . . . . . 56  
 4. reginæ, *L.* . . . . . . 5  
 5. tæniurus, *Tschudi* . . . . 5  
 6. \*conirostris, *Gthr.* . . . . 2

Stenorhina, *D. et B.* (App.)

1. ventralis, *D. et B.* . . . . 0  
 2. freminvillei, *D. et B.* . . . 1

Erythrolamprus, *Boie.*

1. venustissimus, *Schl.* . . . . 36

\*Hypsirhynchus, *Gthr.*

1. \*ferox, *Gthr.* . . . . . 1

## Fam. III. NATRICIDÆ.

\*Grayia, *Gthr.*

1. \*silurophaga, *G.* . . . . . 4

Tomodon, *D. et B.*

1. \*strigatus, *Gthr.* . . . . . 1  
 2. dorsatus, *D. et B.* . . . . 1

Xenodon, *Boie.*

1. severus, *L.* . . . . . 22  
 2. gigas, *D. et B.* . . . . . 0  
 3. \*colubrinus, *Gthr.* . . . . . 1  
 4. rhabdocephalus, *Wied* . . . 21  
 5. typhlus, *L.* . . . . . . 3  
 6. viridis, *D. et B.* . . . . . 12  
 7. rhodomelas, *Boie* . . . . . 1  
 8. \*macrophthalmus, *Gthr.* . . 6

Tropidonotus, *Kuhl.*

1. natrix, *L.* . . . . . 35  
 2. viperinus, *Latr.* . . . . . 5  
 3. hydrus, *Pall.* . . . . . . 9  
 4. quincunciatus, *Schleg.* . . . 75  
 5. spilogaster, *Boie* . . . . . 2  
 6. annularis, *Hallow.* . . . . 2  
 6 a. \*punctulatus, *Günther*  
 (App.) . . . . . . 1  
 7. vittatus, *L.* . . . . . 17  
 8. stolatus, *L.* . . . . . 58  
 9. subminiatus, *Reinw.* . . . . 17  
 10. trianguligerus, *Reinw.* . . . 7  
 11. chrysargus, *Boie* . . . . . 8  
 12. chrysargoides, *Schleg.* . . . 1  
 13. tigrinus, *Boie* . . . . . . 4  
 14. picturatus, *Schleg.* . . . . 10  
 15. saurita, *L.* . . . . . 29  
 16. ordinatus, *L.* . . . . . 71

**Tropidonotus.**

17. *fasciatus*, *L.* . . . . 34
18. *cyclopion*, *D. et B.* . . . 4
19. *leberis*, *L.* . . . . 4
20. *grahamii*, *Baird et Gir.* . . 4
21. \**medusa*, *Gthr.* . . . . 2
22. *cerasogaster*, *Cantor* . . . 7
23. \**auriculatus*, *Gthr.* . . . 1
24. *vibakari*, *Boie* . . . . 2

**Ischnognathus, D. et B.**

1. *dekayi*, *Holbr.* . . . . 6
2. *occipito-maculatus*, *Stor.* 12

**Heterodon, Beauv.**

1. *platyrhinus*, *Latr.* . . . 11
2. *niger*, *Catesby* . . . . 1
3. *catesbyi*, *Gray* . . . . 7
4. *d'orbignyi*, *D. et B.* . . . 3
5. *madagascariensis*, *D. et B.* 1

**Fam. IV. COLUBRIDÆ.****Rhinechis, Michah.**

1. *scalaris*, *Schinz* . . . . 2

**Pituophis, Holbr.**

1. *vertebralis*, *Blainv.* . . . 4
2. *melanoleucus*, *Daud.* . . . 1
3. *catenifer*, *Blainv.* . . . . 1
4. *bellona*, *Baird et Gir.* . . . 1
5. *mexicanus*, *D. et B.* . . . 1

**Coluber, L.**

1. *æsculapii*, *Gesner* . . . . 2
2. *quadrivittatus*, *Holbr.* . . . 3
3. *quadrilineatus*, *Pall.* . . . 9
4. *rufodorsatus*, *Cant.* . . . . 6
- 4 a. *getulus*, *L. (App.)* . . . . 4
5. *guttatus*, *L.* . . . . 13
6. *spiloides*, *D. et B.* . . . . 2
7. *eximius*, *Dekay* . . . . 8
8. *conspicillatus*, *Boie* . . . . 2
9. *mandarinus*, *Cantor* . . . . 1
10. *callicephalus*, *Gray* . . . . 1

**Elaphis, Aldrov.**

1. *dione*, *Pall.* . . . . 2
2. *sauromates*, *Pall.* . . . . 1
3. *quaterradiatus*, *Gm.* . . . . 4
4. *quadrivirgatus*, *Boie* . . . . 3
5. *virgatus*, *Schleg.* . . . . 3
6. *subradiatus*, *Schleg.* . . . 2

**Cynophis, Gray.**

1. *helena*, *Daud.* . . . . 11

**Spilotes, Wagl.**

1. *radiatus*, *Reinw.* . . . . 11
2. *melanurus*, *Schleg.* . . . 16
3. *reticularis*, *Cant.* . . . . 8
4. *corais*, *Cuv.* . . . . 18
5. *variabilis*, *Wied* . . . . 13
6. *pœcilostoma*, *Wied* . . . . 6
7. \**pœcilonotus*, *Gthr.* . . . 2

**Zamenis, Wagl.**

1. *atrovirens*, *Shaw* . . . . 25
2. *hippocrepis*, *L.* . . . . 15
3. *cliffordii*, *Schleg.* . . . . 9
4. \**caudolineatus*, *Gthr.* . . . 6
5. *ventrimaculatus*, *Gray* . . 19
6. *dahlui*, *Fitz.* . . . . 9

**Coryphodon, D. et B.**

1. *pantherinus*, *Merr.* . . . 14
2. *constrictor*, *L.* . . . . 4
3. *testaceus*, *Say* . . . . 3
4. *fasciatus*, *Shaw* . . . . 11
5. *hexahonotus*, *Cant.* . . . . 4
6. *korros*, *Reinw.* . . . . 9
7. *blumenbachii*, *Merr.* . . . 35
8. \**fuscus*, *Gthr.* . . . . 2
9. *carinatus*, *Gthr.* . . . . 9

**Meizodon, Fischer (App.).**

1. *regularis*, *Fischer* . . . . 1

**Fam. V. DRYADIDÆ.****Herpetodryas, Boie.**

1. *fuscus*, *L.* . . . . 17
2. *carinatus*, *L.* . . . . 16
3. *boddaertii*, *Seetzen* . . . . 15
4. \**brunneus*, *Gthr.* . . . . 1
5. \**rappii*, *Gthr.* . . . . 14
6. *flagelliformis*, *Catesby* . . 1
7. *flavigularis*, *Hallow.* . . . 2
8. *dendrophis*, *Schleg.* . . . . 1

**\*Cyclophis, Gthr.**

1. *æstivus*, *L.* . . . . 16
2. *vernalis*, *Dekay* . . . . 8
3. \**major*, *Gthr.* . . . . 1
4. \**frenatus*, *Gthr.* . . . . 1
- 4 a. \**calamaria*, *Günther*  
(App.) . . . . 2
5. *tricolor*, *Schleg.* . . . . 1

**\*Dryocalamus, Gthr.**

1. \**tristrigatus*, *G.* . . . . 1

*Gonyosoma, Wagl.*

1. *oxycephalum, Reinw.* . . . 13
2. *frenatum, Gray* . . . 1

*Philodryas, Wagl.*

1. *viridissimus, L.* . . . 16
2. *olfersii, Licht.* . . . 14
3. *æstivus, D. et B.* . . . 4
4. *schottii, Fitz.* . . . 3
5. *serra, Schleg.* . . . 0
6. *goudotii, Schleg.* . . . 0
7. *\*dorsalis, Gthr.* . . . 1

*Dromicus, Bibron.*

1. *margaritiferus, Schleg.* . . 18
2. *ater, Gosse* . . . . . 27
3. *pleii, D. et B.* . . . . . 1
4. *\*affinis, Gthr.* . . . . . 4
5. *angulifer, Bibr.* . . . . . 2
6. *antillensis, Schleg.* . . . 1
7. *rufiventris, Mus. Berl.* . . 14
8. *\*rufodorsatus, Gthr.* . . . 5
9. *triscalis, L.* . . . . . 1
10. *callilæma, Gosse* . . . . . 9
11. *temminckii, Schleg.* . . . 9
12. *fugitivus, Donndorf* . . . 20
13. *melanotus, Shaw* . . . . 20
14. *lineatus, L.* . . . . . 28

## Fam. VI. PSAMMOPHIDÆ.

*Psammophis, Boie.*

1. *lineatus, D. et B.* . . . . 1
2. *crucifer, Merr.* . . . . . 17
3. *sibilans, L.* . . . . . 42
4. *irregularis, Fisch.* . . . . 0
5. *elegans, Shaw* . . . . . 14

*Cœlopeltis, Wagl.*

1. *lacertina, Wagl.* . . . . 14

*\*Euophrys, Gthr.*

1. *\*modestus, G.* . . . . . 2

*Psammodynastes, Gthr.*

1. *pulverulentus, Boie* . . . 12
2. *\*pictus, Gthr. (App.)* . . . 4

## Fam. VII. RACHIODONTIDÆ.

*Dasypeltis, Wagl.*

1. *scabra, L.* . . . . . 9
2. *palmarum, Leach* . . . . . 2

## Fam. VIII. DENDROPHIDÆ.

*Bucephalus, Smith.*

1. *capensis, Smith* . . . . . 8

*Hapsidophrys, Fischer.*

1. *lineatus, Fisch.* . . . . . 3
2. *cœruleus, Fisch.* . . . . . 0

*Chrysopelea, Boie.*

1. *rhodopleuron, Reinw.* . . . 1
2. *rubescens, Gray* . . . . . 6
3. *ornata, Shaw* . . . . . 28
4. *præornata, Schleg.* . . . . 2

*Dendrophis, Boie.*

1. *picta, Gm.* . . . . . 50
2. *punctulata, Gray* . . . . . 15
3. *formosa, Reinw.* . . . . . 5
4. *caudolineata, Gray* . . . . 6

*Ahætulla, Gray.*

1. *smaragdina, Boie* . . . . . 15
2. *irregularis, Leach* . . . . . 30
3. *liocercus, Wied* . . . . . 36
4. *mexicana, D. et B.* . . . . 19
5. *catesbyi, Schleg.* . . . . . 5
6. *oxyrhyncha, D. et B.* . . . . 1

## Fam. IX. DRYOPHIDÆ.

*Dryophis, Boie.*

1. *argentea, Daud.* . . . . . 1
2. *acuminata, Wied* . . . . . 14
3. *kirtlandii, Hallow.* . . . . 8
4. *\*tropidococyx, Gthr.* . . . . 9
5. *fulgida, Daud.* . . . . . 5
6. *\*fronticincta, Gthr.* . . . . 3
7. *prasina, Reinw.* . . . . . 34

*Passerita, Gray.*

1. *mycterizans, L.* . . . . . 36

*Langaha, Brug.*

1. *nasuta, Shaw* . . . . . 2
2. *crista-galli, D. et B.* . . . . 0

## Fam. X. DIPSADIDÆ.

*Thamnodynastes, Wagl.*

1. *nattereri, Mikan* . . . . . 25
2. *punctatissimus, Wagl.* . . . 2

*Leptodeira, Fitz.*

1. *rufescens, Gm.* . . . . . 23
2. *annulata, L.* . . . . . 90



- Eudipsas, Fitz.**  
 1. *cynodon*, *Cuv.* . . . . 4  
 2. *leucocephalus*, *Mik.* . . . 5
- Dipsas, auct.**  
 1. *multimaculata*, *Reinw.* . . 5  
 2. *dendrophila*, *Reinw.* . . 11  
 3. *\*boops*, *Gthr.* . . . . 2  
 4. *drapiezii*, *Boie* . . . . 1  
 5. *fusca*, *Gray* . . . . 8  
 6. *irregularis*, *Merr.* . . . 6  
 7. *forsteni*, *D. et B.* . . . 4  
 8. *valida*, *Fisch.* . . . . 2  
 9. *globiceps*, *Fisch.* . . . . 0  
 10. *fasciata*, *Fisch.* . . . . 0  
 11. *pulverulenta*, *Fisch.* . . . 2  
 12. *cenchoa*, *L.* . . . . 9
- Dipsadomorphus, Fitz.**  
 1. *trigonatus*, *Schneid.* . . 23  
 2. *\*ceylonensis*, *Gthr.* . . . 7  
 3. *biscutatus*, *D. et B.* . . . 1
- Rhinobothryum, Wagl.**  
 1. *lentiginosum*, *Scop.* . . . 1
- Leptognathus, D. et B.**  
 1. *nebulatus*, *L.* . . . . 37  
 2. *mikani*, *Mus. Vienn.* . . . 5  
 3. *variegatus*, *Schleg.* . . . 0  
 4. *pavoninus*, *Cuv.* . . . . 0  
 5. *catesbyi*, *Weig.* . . . . 7  
 6. *indicus*, *Laur.* . . . . 1
- \*Tropidodipsas, Gthr.**  
 1. *\*fasciata*, *G.* . . . . 5
- \*Hemidipsas, Gthr.**  
 1. *\*ocellata*, *Gthr.* . . . . 1
- \*Dipsadoboa, Gthr.**  
 1. *\*maculata*, *G.* . . . . 1  
 2. *\*unicolor*, *G.* . . . . 1
- Amblycephalus, Kuhl.**  
 1. *boa*, *Kuhl* . . . . 4
- Pareas, Wagl.**  
 1. *lævis*, *Kuhl* . . . . 2  
 2. *carinata*, *Reinw.* . . . . 4
- Fam. XI. SCYTALIDÆ.**
- \*Hologerrhum, Gthr.**  
 1. *philippinum*, *G.* . . . . 1
- Scytale, Boie.**  
 1. *coronatum*, *Schneid.* . . 19
- Oxyrhopus, Wagl.**  
 1. *plumbeus*, *Wied* . . . . 7  
 2. *clælia*, *Daud.* . . . . 6
- Oxyrhopus.**  
 3. *formosus*, *Wied* . . . . 2  
 4. *petolarius*, *L.* . . . . 16  
 5. *immaculatus*, *D. et B.* . . 2  
 6. *bipræocularis*, *D. et B.* . . 1  
 7. *trigeminus*, *D. et B.* . . 10  
 8. *doliatus*, *D. et B.* . . . . 2
- Fam. XII. LYCODONTIDÆ.**
- Simocephalus, Gray.**  
 1. *poënsis*, *Smith* . . . . 3
- Lamprophis, Fitz.**  
 1. *aurora*, *L.* . . . . 3
- Alopecion, D. et B.**  
 1. *annulifer*, *D. et B.* . . . . 0  
 2. *\*fasciatum*, *Gthr.* . . . . 1
- Lycophidion, Fitz.**  
 1. *horstokii*, *Schleg.* . . . . 4  
 2. *semiannulis*, *Peters* . . . . 0
- \*Metoporphina, Gthr.**  
 1. *irrorata*, *Leach* . . . . 2
- Boodon, D. et B.**  
 1. *geometricus*, *Boie* . . . . 5  
 2. *\*infernalis*, *Gthr.* . . . . 4  
 3. *unicolor*, *Boie* . . . . 5  
 4. *lineatus*, *D. et B.* . . . . 8
- Holuropholis, Dum.**  
 1. *olivaceus*, *Dum.* . . . . 3
- Lycodon, Boie.**  
 1. *aulicus*, *L.* . . . . 64  
 2. *mülleri*, *D. et B.* . . . . 3  
 3. *rufozonatus*, *Cant.* . . . . 1
- \*Tetragonosoma, Gthr. (App.)**  
 1. *effrene*, *Cant.* . . . . 0
- \*Leptorhytaon, Gthr.**  
 1. *jara*, *Shaw* . . . . 4
- Odontomus, D. et B.**  
 1. *nympha*, *Daud.* . . . . 2
- Ophites, Wagl.**  
 1. *subcinctus*, *Boie* . . . . 2  
 2. *albofuscus*, *D. et B.* . . . 1
- Cercaspis, Wagl.**  
 1. *carinata*, *Kuhl* . . . . 6
- Cyclocorus, D. et B.**  
 1. *lineatus*, *Reinh.* . . . . 4
- Fam. XIII. ELAPIDÆ.**
- \*Glyphodon, Gthr.**  
 1. *ornatus*, *Gray* . . . . 7  
 2. *\*tristis*, *Gthr.* . . . . 1

*Diemansia, Gray.*

1. *psammophis, Schleg.* . . . 3
2. *reticulata, Gray* . . . 10
3. *olivacea, Gray* . . . 4
4. *mülleri, Schleg.* . . . 0
5. *\*annulata, Gthr.* . . . 1

*Hoplocephalus, Cuv.*

1. *bungaroides, Boie* . . . 1
2. *variegatus, D. et B.* . . . 0
3. *\*pallidiceps, Gthr.* . . . 3
4. *gouldii, Gray* . . . 2
5. *coronatus, Schleg.* . . . 11
6. *\*coronoides, Gthr.* . . . 18
7. *curtus, Schleg.* . . . 25
8. *\*superbus, Gthr.* . . . 15

*Pseudechis, Wagl.*

1. *porphyriacus, Shaw* . . . 8

*Hamadryas, Cant.*

1. *elaps, Schleg.* . . . 3

*Bungarus, Daud.*

1. *lineatus, Shaw* . . . 16
2. *fasciatus, Schneid.* . . . 18
3. *semifasciatus, Kuhl* . . . 3
4. *flaviceps, Reinh.* . . . 5

*\*Pseudohaje, Gthr.*

1. *\*nigra, G.* . . . 1

*Naja, Laur.*

1. *tripudians, Merr.* . . . 54
2. *haje, L.* . . . 12

*Cyrtophis, Sundev.*

1. *scutatus, S.* . . . 2

*\*Pseudonaja, Gthr.*

1. *\*nuchalis, G.* . . . 3

*Brachysoma, Fitz.*

1. *diadema, Schleg.* . . . 2
2. *bimaculatum, D. et B.* . . . 0
3. *calonotos, D. et B.* . . . 0

*Elaps, Schneid.*

1. *intestinalis, Laur.* . . . 7
2. *gracilis, Gray* . . . 2
3. *bivirgatus, Boie* . . . 5
4. *\*univirgatus, Gthr.* . . . 2
5. *calligaster, Wieg.* . . . 1
6. *hygiæ, Merr.* . . . 27
7. *corallinus, L.* . . . 26
8. *occipitalis, D. et B.* . . . 2
9. *surinamensis, Cuv.* . . . 0
10. *lemniscatus, L.* . . . 24
11. *fulvius, L.* . . . 37
12. *epistema, D. et B.* . . . 0

*\*Vermicella, Gray.*

1. *\*annulata, Gray* . . . 4

## Fam. XIV. DENDRASPIDIDÆ.

*Dendraspis, Schleg.*

1. *angusticeps, Sm.* . . . 6
2. *jamesonii, Traill* . . . 2

## Fam. XV. ATRACTASPIDIDÆ.

*Atractaspis, Smith.*

1. *bibronii, Sm.* . . . 1
2. *corpulentus, Hallow.* . . . 0

## APPENDIX.

# SYNOPTIC CATALOGUE

OF

## REPTILES.

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### Order II. SNAKES (OPHIDIA).

#### Section II. Colubrinæ.

Belly covered with broad, band-like plates; head covered with shields. Vent without any spur-like feet. Tail conical, tapering. Both jaws provided with teeth.

- A. Colubrine Snakes without grooved or perforated fang in front.
- B. Colubrine Snakes with a permanently erect, grooved fang in front.
- C. Colubrine Snakes with a permanently erect, perforated fang in front.

A. *Colubrine Snakes without a grooved or perforated fang in front.*

Les serpens non venimeux, *Schlegel*. Les serpens non venimeux et les Opisthoglyphes, *Duméril & Bibron*.

## Fam. I. CALAMARIDÆ.

Body generally moderate, cylindrical, sometimes elongate cylindrical. Tail generally short, cylindrical, rather tapering. Head not distinct from neck, with rounded or pointed muzzle; some shields of head always united. Cleft of mouth short. Nostril lateral, small. Eye generally small, with round pupil; never more than one anterior and two posterior oculars. Scales sometimes short and smooth, rounded behind, not much imbricate, sometimes rather elongate and keeled, in thirteen to nineteen rows. Ventral plates without keels. Teeth generally equal and smooth, sometimes posterior maxillary tooth longest, sometimes grooved.

Calamaria, *Schlegel, Essai*, ii. p. 25. Calamariens, *Dum. & Bibr.* vii. p. 48. Leptognathiens, *pt., Dum. & Bibr.* vii. p. 462. Sténocephaliens, *Dum. & Bibr.* vii. p. 831.

*Synopsis of the Genera.*

1. CALAMARIA. Only one pair of frontals; scales in thirteen rows. Asia.
2. CONOPSIS. Only one pair of frontals; scales in seventeen rows. North America.
3. AMBLYMETOPON. Rostral shield with a sharp ridge above, and forming a suture with the vertical. Central America.
4. RHINOSTOMA. Rostral shield separated from vertical by the frontals, with a sharp ridge above; subcaudals two-rowed. America; Africa.
5. RHINOSIMUS. Rostral shield with a sharp ridge above; subcaudals entire.
6. RHABDOSOMA. Scales smooth; subcaudals two-rowed; rostral rounded; two pairs of frontals; teeth smooth; loreal united with ante-ocular; anal entire. South America; East Indies.
7. BRACHYORRHOS. Scales smooth; subcaudals two-rowed; rostral rounded; two pairs of frontals; teeth smooth; loreal united with frontal. East Indian Islands.
8. ASPIDURA. Scales smooth; subcaudals entire. Ceylon.
9. HAPLOCERCUS. Scales keeled; subcaudals entire. Ceylon.
10. ELAPOIDIS. Scales keeled, in fifteen rows; subcaudals two-rowed. Java.
11. STREPTOPHORUS. Scales keeled, in nineteen (seventeen) rows; subcaudals two-rowed; one anterior pair of frontals. Central and South America.



12. CONOCEPHALUS. Scales keeled, in seventeen rows; subcaudals two-rowed; one azygos anterior frontal. South America.
13. CARPHOPHIS. Scales smooth; subcaudals two-rowed; rostral rounded; two pairs of frontals; teeth smooth; loreal united with ante-ocular; anal bifid. North America.
14. HOMALOCRANION. Scales smooth; subcaudals two-rowed; rostral rounded; two pairs of frontals; posterior maxillary teeth grooved. Central and South America.
15. HOMALOSOMA. One loreal; one ante-orbital; teeth smooth; palatine teeth. South Africa.
16. OLIGODON. No palatine teeth. East India.

### 1. CALAMARIA, Boie.

Body stout or elongate; tail short. Only one pair of frontals; one nasal, pierced by the nostril; loreal none, united with the frontal; one anterior, one posterior ocular; four or five upper labials. Scales smooth, rounded behind, in thirteen (in one species in seventeen) rows; anal entire; subcaudals two-rowed. Teeth equal, smooth. East Indies (Persia).

*Calamaria*, Boie, *Isis*, 1827, p. 519, 539; *Wagler*, *Natürl. Syst. der Amphib.* p. 191; *Dum. & Bibr.* vii. p. 60. *Calamaria*, sp., *Schlegel*. *Coluber*, sp., *Anguis*, sp., *auct. prior*.

### 1. CALAMARIA LINNÆI.

*Coluber calamarius*, *Linn. Mus. Ad. Fried.* t. 6. f. 3, and *Syst. Nat.* i. p. 375; *Daubent. Quadr. Ovip. Serp.* p. 596; *Lacép. Quadr. Ovip. Serp.* ii. p. 318; *Bonnat. Ophiol.* p. 43; *Latr. Rept.* iv. p. 180; *Daud. Rept.* vii. p. 180; *Merr. Tent.* p. 96. *Anguis calamaria*, *Laur. Syn. Rept.* p. 68. *Calamaria linnæi*, Boie, *Isis*, 1827, p. 539; *Wagl. Syst.* p. 192; *Schleg. Ess.* ii. p. 28. pl. 1. f. 17, 18, and *Abbildg.* t. 4. f. 1-3; *Dum. & Bibr.* p. 63. *Calamaria maculosa*, Boie, *l. c.* p. 540. *Calamaria multipunctata*, Boie, *l. c.*; *Wagler, l. c.* *Calamaria reticulata*, Boie, *l. c.*

Scales in thirteen rows; upper labials four; first pair of lower labials not forming a suture. Above lighter or darker brown, sometimes spotted, sometimes uniform. Belly generally with quadrangular black spots, sometimes uniform blackish, like the back.

- a. Adult. Java. From the Leyden Museum.  
 b. Adult. Java. From M. Parzudaki's Collection, as *Oligodon torquatus*.  
 c-h. Adult. Batavia.  
 i. Adult. Batavia.

## 2. CALAMARIA QUADRIMACULATA.

*Calamaria quadrimaculata*, Dum. & Bibr. p. 73.

Scales in thirteen rows; upper labials four; first pair of lower labials forming a suture. Above with more or less distinct longitudinal streaks; beneath uniform whitish; tail above with two pairs of whitish spots.

- a. Half-grown. India. Presented by General Hardwicke.  
 b. Half-grown. Sine patria. From Mr. Bartlett's Collection.

## 3. CALAMARIA ALBIVENTER.

*Changulia albiventer*, Gray, *Indian Zool.* pl. .f. 6-9. *Calamaria albiventer*, Gray, MSS.

Scales in thirteen rows; upper labials five; first pair of lower labials not forming a suture. Above brown, with four yellowish longitudinal streaks from the occiput to the tip of the tail; beneath uniform whitish; medial suture of subcaudals black.

- a, b. Adult. Penang. Presented by General Hardwicke.  
 c, d. Adult. India. From Mr. Warwick's Collection.

There is no azygos scale between the chin-shields; behind the last upper labial shield a larger scale; one anterior and one posterior ocular.

## 4. CALAMARIA GERVAISII.

*Calamaria virgulata*, Gervais, *Mag. Zool. Guérin, Rept.* pl. 16. f. 7-10, and *Voy. autour du Monde de la Favorite, Zool.* ii. p. 75. *Calamaria gervaisii*, Dum. & Bibr. p. 76.

Scales in thirteen rows; upper labials five; first pair of lower labials not forming a suture; no azygos scale between the chin-shields. Above brownish, sometimes with darker longitudinal streaks; beneath whitish uniform, or with lateral spots; a blackish streak along the medial suture of subcaudals.

- a, b. Adult. Philippine Islands. From Mr. Cuming's Collection.  
 c. Half-grown. Philippine Islands. From Mr. Cuming's Collection.

- d. Young. Philippine Islands. From Mr. Cuming's Collection.
- e. Adult. Philippine Islands. From Mr. Cuming's Collection.  
(Belly uniform whitish, neck with a black collar; some obsolete dorsal spots behind.)

# 5. CALAMARIA LUMBRICOIDEA.

*Calamaria lumbricoidea*, Boie, *Isis*, 1827, p. 540; *Wagl. Syst.* p. 192; *Schleg. Ess.* pl. 1. f. 14-16; *Cantor, Catal.* p. 61; *Dum. & Bibr.* p. 89. *Calamaria virgulata* (young), Boie, *l. c.* (not *Gervais*).

Upper labials five; first pair of lower labials not forming a suture; no azygos scale between the chin-shields; rostral just reaching the surface of head. Body cylindric, much elongated. Above brownish, beneath white, with large black square spots.

- a. Adult. Java. From the Leyden Museum.
- b. Adult. Philippine Islands. From Mr. Cuming's Collection.
- c. Half-grown: very bad state. Asia.

# 6. CALAMARIA SCHLEGELII.

*Calamaria schlegelii*, *Dum. & Bibr.* p. 81.

Scales in thirteen rows; upper labials five; first pair of lower labials not forming a suture; an azygos scale between the chin-shields. Body and tail of moderate length. Reddish brown; head uniform yellow; belly yellowish, with black band-like spots.

- a. Adult. Borneo. Presented by Sir J. Brooke.
- b. Half-grown. Borneo. From Mr. Wallace's Collection.

The characters of our diagnosis are somewhat different from the description given by Duméril and Bibron, and founded upon a single specimen. The scales of the medial dorsal row are rather larger than the other ones. Native country the same.

# 7. CALAMARIA TEMMINCKII.

*Calamaria temminckii*, *Dum. & Bibr.* p. 87.

Upper labials five; first pair of lower labials not forming a suture; no azygos scale between the chin-shields; rostral produced backwards between the frontals, pointed behind. Body cylindric, elongate. Above brown; beneath whitish, with black cross bands.

- a. Adult. Borneo. From Mr. Wallace's Collection.

## 8. CALAMARIA GRAYI.

Scales in thirteen rows; upper labials five; first pair of lower labials not forming a suture; no azygos scale between the chin-shields. Body cylindric, much elongate; muzzle very short. Young reddish white, with black rings; in older age the rings confluent on the back, and belly with black square bands.

*a.* Adult. Philippine Islands. From Mr. Cuming's Collection.

*b.* Young. Philippine Islands. From Mr. Cuming's Collection.

Head very short, depressed, flat above, like that of *Elaps*; muzzle very short, rounded in front; rostral shield just reaching the surface of head; vertical moderate, six-sided; fifth upper labial forming a suture with the occipital; two scale-like temporal shields behind; body and tail as in *C. lumbricoidea*, but head much shorter.

## 9. CALAMARIA CORONELLA.

*Calamaria coronella*, Schlegel, *Essai*, ii. p. 48.

Scales in seventeen rows. Brownish above, with a dorsal series of large brown spots.

*a.* Adult. Persia. Only one pair of frontals.

The specimens described by Schlegel have only fifteen longitudinal rows of scales.

## 2. CONOPSIS, Günther.

Body and tail moderate. Only one pair of frontals; rostral shield protruding, pyramidal, slightly bent upwards; one nasal, pierced by the nostril; loreal none, united with the frontal; one anterior, two posterior oculars; seven upper labials. Scales smooth, rounded behind, in seventeen rows; anal bifid; subcaudals two-rowed. Teeth equal, smooth. California.

## 1. CONOPSIS NASUS.

Uniform dark olive; on the anterior part of back some small black spots; beneath paler, with black spots.

*a.* California. From Mr. Bridges' Collection.

*Description of the specimen.*—Head rounded, conical, sharply pointed in front, not distinct from neck; body cylindrical, rather compressed; tail not distinct, stout, tapering; eye moderate, pupil round. Rostral shield forming a solid, protruding, four-sided pyramid with rounded edges, the top of which is slightly bent upwards (somewhat similar to the same shield in *Rhinostoma*,



but without sharp ridge); upper jaw much longer than lower; mouth moderately cleft; only one pair of frontals, large, six-sided, bent on the sides; vertical very large, longer than broad, six-sided, with an obtuse angle in front, and an acute one behind; superciliaries elongate; occipitals rather large, rounded behind; one nasal, pierced by a very small nostril, in direct contact with the ante-ocular; one anterior ocular, not raised on the surface of crown; two posterior oculars; loreal none; seven upper labials, third and fourth forming the lower edge of orbit; one large elongate temporal, in contact with both hinder oculars, some scale-like shields behind; first pair of lower labials forming a suture behind the terminal shield; two pairs of chin-shields, the anterior one largest, each half irregularly five-sided, twice as long as broad. Scales smooth, rather short, rounded at the tip, in seventeen rows; ventral plates 118, anal bifid, subcaudals 38. Nearly uniform dark olive; on the anterior part of back some obsolete black spots; sides lighter; belly yellowish white; edges of each ventral plate with two or three black spots. Length of cleft of mouth  $\frac{1}{4}$ "; length of tail 2"; total length 10".

### 3. AMBLYMETOPON, *Günther*.

Body rounded, moderate; tail short; head short, convex, not distinct from neck; neck not distensible; rostral shield prominent, recurved, sharp above, forming a broad suture with the vertical; one pair of frontals, separated by the vertical; nostril between nasal and first upper labial; scales smooth, short, in seventeen rows, square; subcaudals two-rowed. Teeth in both jaws equal, smooth; palatine teeth. Mexico.

#### 1. AMBLYMETOPON VARIEGATUM.

Whitish, with black cross bars; belly uniform whitish.

a. Mexico. From M. Sallé's Collection.

b. Mexico. Adult female in a bad state.

*Description of the specimens.*—Body moderate; tail rather short, tapering; head not distinct, convex, with rounded crown; muzzle not elongate; cleft of mouth rather short; eye moderate, pupil subelliptical. Rostral shield very peculiarly shaped: bent upwards, with a sharp, convex ridge above, as in *Rhinostoma*, but much narrower, provided with a long posterior process, not tapering behind, forming a broad suture with the vertical, so as to separate entirely the frontals; only one pair of frontals, each quadrangular, large, spheroidal; vertical large,

convex, seven-sided; front side in contact with the hinder process of rostral shield, two sides with each frontal, two with each superciliary, two with the occipitals. Occipitals rounded behind, rather small, bent on the sides. One anterior, two posterior oculars; loreal none; one small nasal; nostril between the nasal and a process of the first labial, raised upwards between rostral and nasal; seven upper labials, the third and fourth forming the lower edge of orbit; one elongate anterior temporal shield, two or three smaller ones behind; chin-shields regular. Scales smooth, nearly square, in seventeen rows; 151 ventral, one bifid anal, and 37 bifid subcaudal plates. Above reddish white, with 56 black narrow cross bars, two on the neck larger than the remainder; crown of head with symmetrical black markings; sides black-spotted; belly uniform whitish. In the oviduct of the second specimen I found four mature eggs, but without embryo; they were 1" long and  $\frac{1}{3}$ " broad. Length of cleft of mouth  $\frac{4}{9}$ "; length of tail  $2\frac{1}{8}$ "; total length  $15\frac{1}{2}$ ".

#### 4. RHINOSTOMA, *Fitzinger*.

Body rounded, moderate; tail short; head short, not very broad, and not distinct from body; neck not distensible; rostral shield pyramidal, prominent, sharp above, recurved; scales smooth, large, in fifteen to nineteen rows, rhombic; anal entire; subcaudals two-rowed; two pairs of frontals; one anterior, two posterior oculars. Posterior maxillary teeth longest. America; Africa.

*Rhinostoma*, *Fitzinger*, *Neue Classif. Rept.* p. 56; *Wagl. Nat. Syst. der Amph.* p. 171; *Dum. & Bibr.* vii. p. 992. *Heterodon*, sp., *Schlegel*.

##### 1. RHINOSTOMA SCHLEGELII.

*Heterodon rhinostoma*, *Schleg.* *Ess.* ii. p. 100. pl. 3. f. 17-19.

Scales in fifteen rows; anterior frontals in direct contact one with the other; one pair of posterior frontals. Whitish (in spirits), with broad black rings; belly black-spotted. Posterior maxillary teeth?

North America.

##### 2. RHINOSTOMA NASUUM.

*Vipera nasua*, *Oppel*, *Mus. Paris.* *Rhinostoma nasuum*, *Wagl. Nat. Syst. der Amph.* p. 171; *Dum. & Bibr.* vii. p. 994. *Hete-*

rodon guianensis, *Troschel in Schomburgk's Reise im Brit. Guiana*, iii. p. 645.

Scales in nineteen rows; anterior frontals in direct contact one with the other; one pair of posterior frontals; head and neck blackish brown, with a whitish collar. Posterior maxillary teeth channeled.

- a. Half-grown. Carthagenæ. From Paris. The specimen agrees in all characters with the young specimen described by Duméril and Bibron, vii. p. 995. Body above scattered with small black points, beneath uniform whitish. In its stomach I found also an *Ameiva*. Troschel was the first who discovered the differences between this species and that described by Schlegel; but it appears from Duméril's description, in which both species are again confounded, that Oppel's specimen, the specimen of the 'Ancient Cabinet,' belongs to the South American species, and not to the North American. Therefore we are obliged to restore this species to its first denomination, and to give a new one to the other.
- b. Half-grown: discoloured. Berbice. Presented by Lady Essex.
- c. Nearly 2' long. America. From Mr. Thomas's Collection. Greatly injured.

### 3. RHINOSTOMA CUPREUM.

Scales in fifteen rows; anterior frontals separated one from the other by a long hinder process of the rostral shield, reaching the posterior frontal; posterior frontals confluent. Head brown, with whitish crown; body above reddish grey, with two series of brown distinct spots; beneath uniform whitish. Posterior maxillary teeth smooth.

- a. Adult. Africa. From M. Parzudaki's Collection.
- b-d. Half-grown and young. South Africa.

*Description.*—Head not very distinct from neck; eyes small, pupil round; mouth moderately cleft; rostral shield very broad, its breadth nearly equal to the distance of the eyes, bent upwards, with a sharp convex ridge, reaching the posterior frontal, and separating the anterior ones; anterior frontals triangular, small; posterior frontals united, broad, rather narrow, only in one young specimen with a slight longitudinal suture; vertical large, five-sided, with nearly parallel lateral edges, and an obtuse angle behind; occipitals very small, smaller than vertical, rounded behind; nasal single, in the centre with the narrow nostril; one



loreal; seven upper labials; one anterior, two posterior oculars; 155 abdominal, one entire anal, 33 bifid caudal plates. Tail short, thick, ending in an acute spine. Head and neck dark brown or black; vertical and occipitals dirty white; body and tail brownish grey, each scale darker-edged. Back with two longitudinal series of about fifty dark brown small spots; abdomen uniform yellowish. Breadth of head  $\frac{1}{3}$ " ; length of head  $\frac{1}{3}$ " ; total length 13" ; length of tail  $1\frac{5}{8}$ ".

### 5. RHINOSIMUS, *Dum. & Bibr.*

Body rounded, moderate; tail moderate; head short, rather distinct from body; rostral shield pyramidal, prominent, sharp above, recurved; scales smooth, in nineteen rows; anal and subcaudals entire; two pairs of frontals, two anterior and two posterior oculars. Posterior maxillary teeth longest, grooved.

*Rhinosimus*, *Dum. & Bibr.* vii. p. 991.

#### 1. RHINOSIMUS GUERINI.

*Rhinosimus guerini*, *Dum. & Bibr.* l. c. pl. 72.

Above uniform brown.

*Hab.* — ?

### 6. RHABDOSOMA, *Dum. & Bibr.*

Two pairs of frontal shields, front pair much smaller than the hinder one; rostral small; two narrow nasals surrounding the nostril; anterior ocular none, united with the loreal; two (one) posterior oculars. Scales smooth, rounded behind, in fifteen or seventeen rows; anal entire; subcaudals two-rowed. Teeth equal, smooth. South America; East Indies.

*Rhabdosoma*, *Dum. & Bibr.* vii. p. 91. *Calamaria*, sp., *Schleg. Ess.* ii. p. 35. *Brachyorrhos*, *Boie, Isis*, 1827, p. 540; *Wagler, Syst. der Amph.* p. 190.

#### 1. RHABDOSOMA SEMIDOLIATUM.

*Rhabdosoma semidoliatum*, *Dum. & Bibr.* p. 93.

Upper labials five, temporal one. White, with large, broad, black cross bands.

a. Adult. Mexico. From Hugo Finck's Collection.

b. Half-grown. Mexico.

c. Young. Mexico. From M. Sallé's Collection. Uniform black.



2. RHABDOSOMA BADIUM.

Brachyorrhos badius, B. schach, B. flammigerus, Boie, Isis, 1827, p. 540; Wagl. Syst. p. 190. Calamaria badia, Schleg. Ess. ii. p. 35. Rhabdosoma badium, Dum. & Bibr. p. 95.

Upper labials seven, the third and fourth coming into the orbit; one pair of chin-shields. Body and tail rather elongate. Brownish, either with pairs of black cross bands, or with white equidistant transverse spots.

a, b. Adult. Para. From Mr. Stevens's Collection. Belonging to the white-banded variety.

3. RHABDOSOMA CRASSICAUDATUM.

Rhabdosoma crassicaudatum, Dum. & Bibr. p. 103.

Upper labials seven, the third and fourth coming into the orbit; one pair of chin-shields. Body rather stout; tail short. Brown, uniform or with lighter spots; belly dull yellowish, marbled with black.

a. Adult. Caraccas. From M. Parzudaki's Collection.

b. Adult. Caraccas.

4. RHABDOSOMA LINEATUM.

Rhabdosoma lineatum, Dum. & Bibr. p. 105.

Upper labials eight, the fourth and fifth coming into the orbit; one pair of chin-shields. Body and tail rather stout. Above brownish, with three (two) dark longitudinal streaks; beneath uniform whitish.

a-c. Adult. Berbice.

d. Adult. Mexico. From M. Sallé's Collection. Medial streak wanting.

e-i. Adult, half-grown, and young. South America. From Mr. Mather's Collection.

k. Adult: not good state. America. Presented by Captain Forster.

l. Adult: not good state. America. Presented by Edward Cook, Esq.

Both the specimens upon which Duméril and Bibron based their description, are given as natives of Java. Nevertheless, without further evidence, we are obliged to apply the same name to our specimens, coming from America, and perfectly agreeing with the description of *R. lineatum*. Maxillary teeth eleven, all smooth.

## 5. RHABDOSOMA LONGICAUDATUM.

*Rhabdosoma longicaudatum*, *Dum. & Bibr.* p. 106.

Upper labials seven, the third and fourth coming into the orbit; one pair of chin-shields. Body and tail elongate. Above brownish, darker marbled; beneath whitish, with large black square spots. Java.

*a.* Adult. Asia.

## 6. RHABDOSOMA LEPORINUM.

Upper labials seven, the fourth and fifth coming into the orbit; three pairs of chin-shields; body rather elongate; tail moderate, very thin. Above uniform lead-coloured, beneath paler.

*a, b.* Adult. Philippine Islands. From Mr. Cuming's Collection.

*Description.*—Body rather elongate; tail moderate, thin, tapering; head narrow, conical, pointed in front. Rostral small, triangular, just reaching the surface of head, with a deep groove from the base to the tip (*fissura leporina*). Anterior frontals small; posterior ones very large, forming the upper anterior edge of orbit; vertical longer than broad, nearly triangular; occipitals rather elongate; two posterior oculars; ante-ocular forming with the loreal a united, very long, anteriorly broader shield; two small nasals, nostril between; seven upper labials, fourth and fifth coming into the orbit; one large front temporal shield, three or four smaller ones behind. Medial lower labial very narrow, broad; first pair of lower labials very narrow, forming a suture together; three pairs of chin-shields, front pair forming a nearly circular or elliptical disk. Scales rather large, in fifteen rows, rounded behind; anal entire; tail very thin, surrounded only by six rows of scales. Above uniform lead-coloured, beneath dull yellowish or whitish, without any spot. Length of cleft of mouth  $\frac{5}{8}$ " ; length of tail  $3\frac{3}{4}$ " ; total length 28".

## 7. RHABDOSOMA MICROCEPHALUM.

Upper labials five, the second and third coming into the orbit; three or four temporals. Brown, with dark spots, confluent to streaks on the hinder part of body.

*a.* Adult. Madras. Presented by J. C. Jerdon, Esq.

*Description of the specimen.*—Body stout; tail short, not distinct from trunk, tapering; head small, short, conical, pointed

in front, not distinct from neck. Eye small. Rostral shield small, grooved; anterior frontals very small; posterior ones moderate, forming the upper anterior edge of orbit. Vertical six-sided, not longer than broad, with an obtuse angle in front, and a right one behind; lateral edges short, nearly parallel; occipitals elongate; superciliary small, posterior ocular one; ante-ocular forming with the loreal a united, elongate shield, pointed behind, broader in front; five upper labials, the second and third coming into the orbit; three or four temporal shields, one in direct contact with the posterior ocular. Medial lower labial very small; first, second and third pair of lower labials suppressed by the single, excessively large pair of chin-shields, and so small and narrow as to be hardly visible; I do not know whether this peculiarity is only accidental in the individual. Scales rather large, rounded behind, in thirteen rows; anal entire. Above brown, some scales darker coloured, and forming interrupted longitudinal streaks, more conspicuous on the posterior part of body; a similar broad band along the sides; on each side of the neck a yellowish streak, with the tendency towards forming a collar; belly brown, plates lighter edged. Length of cleft of mouth  $\frac{3}{8}$ "; length of tail  $\frac{7}{8}$ "; total length 12".

## 7. BRACHYORRHOS, Kuhl.

Body cylindric, rather elongate; tail moderate, tapering; head narrow; two pairs of frontal shields, front pair much smaller; rostral small; two narrow nasals surrounding the nostril; loreal none, united with the frontal; one anterior, two posterior oculars. Scales smooth, rounded behind, in seventeen rows; anal entire; subcaudals two-rowed. Teeth equal, smooth. East Indian Islands.

*Brachyorrhos*, *Dum. & Bibr.* vii. p. 510. *Brachyorrhos*, sp., (*Kuhl*) *Boie, Isis*, 1827, p. 519; *Wagl. Syst.* p. 190. *Calamaria*, sp., *Schleg. Ess.* ii. p. 33. *Atractus*, *Wagl. Isis*, 1828, p. 741. *Anguis*, sp., *Coluber*, sp., *auct. prior.*

## 1. BRACHYORRHOS ALBUS.

*Coluber albus*, *Linn. Mus. Ad. Fried.* t. 14. f. 2 (discoloured), and *Syst. Nat.* i. p. 378; *Daubent. Quadr. Ovip. Serp.* p. 592; *Lacép. Quadr. Ovip. Serp.* ii. p. 183; *Latr. Rept.* iv. p. 145; *Daud. Rept.* vii. p. 49; *Merr. Tent.* p. 94. *Anguis alba*, *Laur. Syn.* p. 73. Stumpfschwanzige Natter, *Merr. Beitr.* ii. t. 7. *Coluber brachyurus*, *Shaw, Zool.* iii. p. 470; *Kuhl, Beitr.* ii. p. 89. *Brachyorrhos albus*, (*Kuhl*) *Boie, Isis*, 1827, p. 519;

*Dum. & Bibr.* p. 511. *Brachyorrhos Kuhlii*, (*Boie*) *Wagl. Syst.* p. 190. *Atractus trilineatus*, *Wagl. Isis*, 1828, t. 10. f. 1-4. *Calamaria brachyorrhos*, *Schlegel, Ess.* ii. pl. 1. f. 21-23.

Above brownish, beneath whitish.

a. Adult. Timor. From the Leyden Museum.

### 8. ASPIDURA, *Wagler*.

Body moderate; tail tapering, sometimes moderate, sometimes stouter; two posterior frontals, one single anterior; two very small nasals; loreal none, united with the frontal; one anterior ocular (sometimes united with frontal), two posterior ones. Scales smooth, rounded behind, in fifteen or seventeen rows; anal and subcaudals entire. Teeth equal, smooth. Ceylon.

*Aspidura*, *Wagler, Natürl. Syst. der Amph.* p. 191; *Dum. & Bibr.* vii. p. 127. *Calamaria*, sp., *Schleg. Ess.* ii. p. 42. *Scytale*, sp., *Boie, Isis*, 1827, p. 517.

#### 1. ASPIDURA BRACHYORRHOS.

*Scytale brachyorrhos*, *Boie, Isis*, 1827, p. 517. *Aspidura scytale*, *Wagler, Nat. Syst. Amph.* p. 191; *Dum. & Bibr.* p. 128. *Calamaria scytale*, *Schleg. l. c.*

Brownish or brown, uniform or spotted, generally a large dark spot on each side of neck.

a, b. Adult. Ceylon. From Mr. Cuming's Collection.

c. Adult. Ceylon. From Mr. Cuming's Collection.

d. Adult. Ceylon. From Mr. Cuming's Collection.

e, f. Adult. Ceylon. From Mr. Cuming's Collection.

g-k. Adult and half-grown. Ceylon. From Mr. Cuming's Collection.

l. Adult female: very bad state. Ceylon. Presented by Captain Gascoigne.

m. Half-grown. Ceylon. From Mr. Cuming's Collection.

n. Young. Ceylon. From Mr. Cuming's Collection.

o. Adult. India. From Mr. Warwick's Collection.

p, q. Adult. India. Presented by the Zoological Society.

### 9. HAPLOCERCUS, *Günther*.

Body much elongate; tail moderate, tapering; two posterior frontals, one single anterior; two small nasals; loreal none,



united with the frontal; one anterior, two posterior oculars. Scales keeled, lanceolate, in seventeen rows; anal and subcaudals entire. Teeth equal, smooth. Ceylon.

1. HAPLOCERCUS CEYLONENSIS.

Above blackish or brown, uniform, or with some indistinct spots; beneath uniform yellowish.

a. Adult. Ceylon. Presented by R. Templeton, Esq.

b. Adult. Ceylon. From Mr. Cuming's Collection.

*Description*.—Body very thin and much elongate; tail moderate, not distinct, tapering; head narrow, rounded in front. Rostral small, just reaching the surface of head; only one anterior frontal, obtuse in front, pointed behind; two posterior frontals, suppressing the loreal; vertical rather elongate, five-sided; occipitals narrow; one anterior, two posterior oculars; nostril between two small shields; seven upper labials, eye above the fourth; three temporal shields, one in front; first pair of lower labials forming a suture behind the medial one; two pairs of chin-shields, front pair largest. Scales in seventeen rows, elongate, lanceolate, provided with a strong keel, especially those of the tail; anal and subcaudals entire. Above uniform blackish or brown, with two dorsal rows of small indistinct black spots; occiput with a whitish dark-edged collar; beneath uniform yellowish. Length of cleft of mouth  $\frac{1}{3}$ " ; length of tail  $2\frac{1}{3}$ " ; total length 19".

10. ELAPOIDIS, *Boie*.

Body and tail elongate; two pairs of frontals; two nasals, nostril between; ante-orbital none, united with the loreal; one posterior orbital. Scales keeled, elongate, in fifteen rows; anal entire; subcaudals two-rowed. Teeth equal, smooth. Java.

*Elapoidis*, *Boie*, *Isis*, 1827, p. 519; *Wagl. Syst.* p. 194; *Dum. & Bibr.* vii. p. 122. Calamaria, sp., *Schlegel, Ess.* ii. p. 44.

1. ELAPOIDIS FUSCUS.

*Elapoidis fuscus*, *Boie*, *l. c.*; *Wagl. l. c.*; *Dum. & Bibr.* p. 123 (excl. *Osceola elapsoidea*, Baird & Girard). Calamaria elapoides, *Schlegel, Ess.* ii. pl. 1. f. 31–33.

Brown or blackish above, whitish beneath.

a. Adult. Java. From the Leyden Museum.

11. STREPTOPHORUS, *Dum. & Bibr.*

Body and tail elongate; two pairs of frontals; two nasals, nostril between; ante-orbital none, united with the loreal; two posterior orbitals. Scales keeled, elongate, in nineteen (seventeen) rows; anal entire; subcaudals two-rowed. Teeth equal, smooth. Central and South America.

*Streptophorus*, *Dum. & Bibr.* vii. p. 514. *Calamaria*, sp., *Schleg. Leyden Museum*.

## 1. STREPTOPHORUS DROZII.

*Streptophorus drozii*, *Dum. & Bibr.* p. 518.

Above brown, with a light collar, beneath paler; upper labials seven, the third and fourth coming into the orbit.

- a. Adult. Columbia. From Mr. Brandt's Collection.
- b. Adult. Caraccas. From M. Parzudaki's Collection.
- c. Half-grown. Caraccas.
- d. Half-grown. Honduras.
- e, f. Adult. America.

## 2. STREPTOPHORUS SEBÆ.

*Streptophorus sebæ*, *Dum. & Bibr.* p. 515.

Whitish or brownish, with two rows of black, quadrangular, transverse spots; head and neck brown, with light collar; beneath white.

- a. Adult. Belize.
- b. Adult. Honduras. From M. Parzudaki's Collection.
- c. Adult. Mexico.
- d-f. Adult and young. Mexico. From Hugo Finck's Collection.
- g-i. Adult and half-grown. Mexico. From M. Sallé's Collection.
- k, l. Half-grown. America.

## 3. STREPTOPHORUS BIFASCIATUS.

*Streptophorus bifasciatus*, *Dum. & Bibr.* p. 520.

Above uniform black, with a white collar; beneath white, each ventral plate and subcaudal provided with a black speck, forming together a punctated line along the middle of belly and tail.

*a.* Adult. Central America. From Mr. Gould's Collection.

Duméril's specimen differs in having the black colour predominant beneath.

## 12. CONOCEPHALUS, *Dum. & Bibr.*

Body and tail elongate; head narrow, conical; two posterior frontals; one single anterior; two nasals; ante-orbital none, united with the loreal; one posterior ocular. Scales keeled, lanceolate, in seventeen rows; anal entire; subcaudals bifid. Teeth equal, smooth. Central America.

*Conocephalus*, *Dum. & Bibr.* vii. p. 138. *Haldea*, *Baird, Girard Catal.* p. 122. *Calamaria*, sp., *Schleg. Ess.* ii. p. 43; *Holbrook, N. Amer. Herpet.* iii. p. 123; *Dekay, New York Fauna*, iii. p. 49. *Coluber*, sp., *auct. prior.*

### 1. CONOCEPHALUS STRIATULUS.

*Coluber striatulus*, *Linn. Syst. Nat.* i. p. 275; *Daub. Quadr. Ovip. Serp.* ii. p. 684; *Lacép. Quadr. Ovip. Serp.* ii. p. 285; *Latr. Rept.* iv. p. 84; *Daud. Rept.* vii. p. 200; *Merr. Tent.* p. 118; *Harlan, Journ. Ac. Nat. Sc. Phil.* 1827, p. 354, and *Med. Phys. Res.* 1835, p. 117. *Calamaria striatula*, *Schleg. Ess.* ii. p. 43; *Holbr. N. Amer. Herpet.* iii. pl. 29; *Dekay, New York Fauna*, iii. p. 49. *Haldea striatula*, *Baird, Gir. Catal.* p. 122. *Conocephalus striatulus*, *Dum. & Bibr.* vii. p. 140.

Greyish or brownish above, whitish beneath.

*a.* Adult. New Orleans.

*b.* Adult: bad state. America. From M. Parzudaki's Collection.

*c.* Adult: bleached. America. Old Collection.

*d.* Half-grown. America.

*e.* Half-grown. America. Presented by the Zoological Society.

## 13. CARPHOPHIS, *Dum. & Bibr.*

Body moderate, subcylindrical; tail short, tapering; head rather short; two pairs of frontal shields, front pair much smaller; rostral broad, well developed; one large nasal, pierced by the nostril; ante-orbital none, united with the loreal; one posterior orbital. Scales smooth, rhomboidal, in thirteen rows; anal bifid; subcaudals two-rowed. Teeth equal, smooth. North America.

*Carphophis*, *Dum. & Bibr.* vii. p. 131. *Celuta*, *Baird, Girard Catal.* p. 129. *Brachyorrhos*, sp., *Holbr. N. Amer. Herpet.* iii. p. 115. *Calamaria*, sp., *Schleg. Ess.* ii. p. 31. *Coluber*, sp., *Say, Harlan, Storer.*

#### 1. CARPHOPHIS AMÆNA.

*Coluber amœnus*, *Say, Journ. Ac. Nat. Sc. Phil.* 1825, p. 237; *Harlan, ibid.* 1827, p. 355, and *Med. Phys. Res.* 1835, p. 118; *Storer, Report*, p. 226. *Calamaria amœna*, *Schleg. Ess.* pl. 1. f. 19, 20. *Brachyorrhos amœnus*, *Holbr. N. Amer. Herpet.* iii. pl. 27. *Celuta amœna*, *Baird, Girard Catal.* p. 129. *Carphophis amœna*, *Dum. & Bibr.* p. 131.

Above brown, beneath red (in spirits whitish).

- a. Adult. Delaware. Presented by Henry Doubleday, Esq.
- b. Adult. Pennsylvania. From Mr. Cuming's Collection.
- c. Half-grown. North America. Presented by Sir R. Murchison.
- d. Adult: bad state. North America.
- e. Half-grown. North America.

#### 14. HOMALOCRANION, *Dum. & Bibr.*

Body and tail moderate; head depressed, with flat crown; two pairs of frontal shields, nearly equal in size; two nasals, nostril between; loreal none (in one species present); one moderate anterior, one or two posterior orbitals. Scales smooth, rhomboidal, in fifteen rows; subcaudals two-rowed. Teeth equal in length, posterior maxillary teeth grooved. Central and South America.

*Homalocranion*, *Dum. & Bibr.* vii. p. 855. *Calamaria*, sp., *Schleg. Ess.* ii. p. 38, 47; *Clœlia*, sp., *Wagl. Syst. Amph.* p. 187. *Lycodon*, sp., *Boie, Isis*, 1827, p. 526. *Elaps*, sp., *Coluber*, sp., *auct. prior.*

#### 1. HOMALOCRANION MELANOCEPHALUM.

*Coluber melanocephalus*, *Linn. Mus. Ad. Fried.* t. 15. f. 2, and *Syst. Nat.* i. p. 378; *Daubent. Quadr. Ovip. Serp.* p. 685; *Lacép. Quadr. Ovip. Serp.* ii. p. 293; *Bonnat. Ophiol.* p. 34; *Shaw, Zool.* iii. p. 490; *Daud. Rept.* vi. p. 367; *Merr. Tent.* p. 110. *Elaps melanocephalus*, *Wagl. & Spix, Nov. Serp. Bras.* t. 26. f. 1. *Lycodon melanocephalum*, *Boie, l. c.* *Clœlia melanocephala*, *Wagl. Syst.* p. 187. *Calamaria melanocephala*, *Schleg. Ess.* pl. 1. f. 30. *Homalocranion melanocephalum*, *Dum. & Bibr.* p. 859.



Crown and neck dark brown, sides of head and neck with some white specks; above one or three or five black longitudinal streaks.

Var. A. A single dorsal streak.

a. Adult. Para. From Mr. Stevens's Collection.

b-d. Adult and half-grown. Para. From Mr. Stevens's Collection.

e, f. Half-grown. Fijucu. Presented by Robert Bennett, Esq.

g. Adult. Berbice.

h. Half-grown. Granada. From M. Sallé's Collection. (Dusky variety.)

i. Adult. Tobago. Presented by W. J. A. Ludlow, Esq.

k. Adult: bad state. West Indies. Presented by Colonel Reid.

l. Adult: not good state. America.

m. Adult: discoloured. America. From the Haslar Collection.

n. Half-grown. America. Presented by Edward Laforest, Esq.

Var. B. Five longitudinal streaks on back.

o. Adult. South America. Presented by G. Busk, Esq.

p. Adult. Rio Janeiro. Presented by G. Busk, Esq.

q. Half-grown. Honduras.

r. Young. Venezuela. From Mr. Dyson's Collection.

## 2. HOMALOCRANION SEMICINCTUM.

*Homalocranion semicinctum*, Dum. & Bibr. p. 862.

Above with alternate black and white rings; beneath uniform whitish.

a. Adult. Mexico. From Hugo Finck's Collection (cf. *Elaps fulvius*).

## 15. HOMALOSOMA, Wagler.

Body moderate; tail rather short; head small; two pairs of frontal shields, front pair rather smaller; one nasal, pierced by the nostril; one loreal, one anterior, two posterior oculars. Scales smooth, rhomboidal, in fifteen rows; anal entire; subcaudals two-rowed; ventral plates rather narrow. Teeth equal, smooth. South Africa.

*Homalosoma*, Wagl. *Nat. Syst. der Amph.* p. 190; Dum. & Bibr. vii. p. 109. *Calamaria*, sp., Schleg. *Ess.* ii. p. 36. *Elaps*, sp., Coluber, sp., *auct. prior*.

## 1. HOMALOSOMA LUTRIX.

*Homalosoma lutrix*, *Seba*, i. l. 6, ii. 86. 5. *Coluber lutrix*, *Linn. Syst. Nat.* i. p. 375; *Daubent. Quadr. Ovip. Serp.* p. 649; *Lacép. Quadr. Ovip. Serp.* ii. p. 175; *Bonnat. Ophiol.* p. 63; *Shaw, Zool.* iii. p. 472; *Latr. Rept.* iv. p. 143; *Daud. Rept.* vii. p. 199. Schmalbauchige Natter, *Merr. Beitr.* i. t. 1; *Shaw, l. c.* p. 474. *Elaps duberria*, *Schneid. Hist. Amph.* p. 297; *Daud. l. c.* p. 202. *Coluber erathon*, *Hermann, Obs. Zool.* p. 273. *Coluber arctiventris*, *Merr. Tent.* p. 100; *Kuhl, Beitr. Zool.* p. 82; *Daud. l. c.* p. 221. *Homalosoma arctiventris*, *Wagl. Syst. Amph.* p. 191. *Calamaria arctiventris*, *Schleg. Ess.* pl. 1. f. 24-26. *Homalosoma lutrix*, *Dum. & Bibr.* vii. p. 110.

Back brown; sides bluish grey, minutely speckled with black; belly yellow, on the sides greyish, black-spotted.

a. Adult. Cape of Good Hope. From the Berlin Museum.

b. Many specimens. Cape of Good Hope.

c. Young. Cape of Good Hope.

d. Adult. South Africa.

e, f. Adult. Africa.

g. Adult. Africa. From the Haslar Collection.

h. Adult: bad state. Africa.

i-l. Adult. Africa.

m-p. Adult. Africa. Presented by Sir F. Macgrigor.

q, r. Half-grown. Africa. Presented by Sir F. Macgrigor.

s, t. Adult. —? Presented by Mr. Linsey.

u. Young. Africa.

## 2. HOMALOSOMA VARIEGATUM.

*Homalosoma variegatum*, *Peters in Wiegman. Archiv*, 1855, p. 51.

Above black, variegated with brownish grey; beneath brownish grey, irregularly black-spotted. Vertical shield much longer than its distance from muzzle.

Mozambique.

16. OLIGODON, *Boie*.

Body and tail moderate; head blunt, conical; rostral shield rather flat in front, pointed behind, and far produced backwards between the anterior frontals; two pairs of frontal shields; two nasals, nostril between; one loreal, one anterior, two posterior oculars. Scales smooth, in fifteen or seventeen rows; subcaudals two-rowed. Teeth equal; posterior maxillary teeth rather longer, not grooved; no teeth on the palatine bones. East Indies.

*Oligodon*, *Boie, Isis*, 1827, p. 519; *Wagl. Syst. Amph.* p. 191; *Dum. & Bibr.* vii. p. 54. *Calamaria*, sp., *Schleg. Ess.* ii. p. 40. *Elaps*, sp., *Gray, Indian Zoology*.

### 1. OLIGODON SUBQUADRATUS.

*Russell, Ind. Serp.* ii. pl. 34. *Oligodon bitorquatus* (*Reinw.*), and *torquatus*, *Boie, l.c.*; *Wagl. l.c.* *Calamaria oligodon*, *Schleg. Ess.* pl. 1. f. 27-29, and *Abbildg.* t. 25. *Oligodon subquadratum*, *Dum. & Bibr.* p. 55.

Belly with black square blotches.

- a, b.* Adult. Java. From the Leyden Museum.
- c.* Adult. Batavia.
- d.* Half-grown. Asia.
- e.* Adult: bad state. [? Ceylon.] Presented by R. Templeton, Esq.

### 2. OLIGODON SUBGRISEUS.

*Oligodon subgriseum*, *Dum. & Bibr.* p. 59.

Belly uniform whitish, without any spot.

- a, b.* Adult. Madras. Presented by Captain Bevan.
- c.* Half-grown. Madras. Presented by J. E. J. Boileau, Esq.
- d.* Adult. India.
- e.* Adult: bleached. India. Old Collection.
- f.* Adult: discoloured. India. Presented by Colonel Lestil.
- g.* Half-grown. India. Presented by W. Masters, Esq.
- h.* Large specimen. India.
- i.* Half-grown. India. From the Haslar Collection.
- k.* Half-grown. India. Old Collection.
- l.* Half-grown. India. Purchased.
- m.* Adult. Madras. Presented by Walter Elliott, Esq.
- n.* Adult female. [? Ceylon.] From Mr. Cuming's Collection.

### 3. OLIGODON SUBLINEATUS.

*Oligodon sublineatum*, *Dum. & Bibr.* p. 57.

Each ventral plate with three black specks, forming together three punctated lines.

- a.* Adult. Kandy. Presented by Captain Gascoigne.
- b.* Adult. Ceylon. From Mr. Cuming's Collection.
- c.* Adult. Ceylon.
- d.* Adult: not good state. Ceylon. Presented by R. Templeton, Esq.

- e. Half-grown: not good state. Ceylon. From Mr. Cuming's Collection.  
 f. Half-grown. Ceylon. From Mr. Cuming's Collection.  
 g. Adult. Sine patria. Presented by the Zoological Society.

#### 4. OLIGODON SUBPUNCTATUS.

*Oligodon subpunctatum*, *Dum. & Bibr.* p. 58.

Belly whitish, with round, irregularly disposed, black specks.  
 East Indies.

#### 5. OLIGODON DORSALIS.

*Elaps dorsalis*, *Gray, Ind. Zool.* pl. . f. 1.

Belly black, with white spots; above reddish white, with a pure white dorsal streak from the occiput to the tip of tail, bordered with equidistant small brown spots; on each side a brown longitudinal streak, indistinct towards the tail.

- a. Adult. India. Presented by General Hardwicke.

Shields of head as in the other *Oligodon*. Scales in fifteen rows. The mouth of the specimen (original specimen of Dr. Gray's figure), and otherwise well preserved, is not in such a condition as to admit an accurate description of the dentition. I was not able to find any traces of teeth on the palatine bone. Head with the general coloration of *Oligodon* and *Simotes*; the dorsal streak interrupted on the tail by three equidistant large black spots; tail beneath uniform white.

### Fam. II. CORONELLIDÆ.

Body moderate, rounded, with flat belly and broad back, never of large size. Tail rather short, not distinct from trunk, tapering. Head rather depressed, generally with short rounded muzzle. Eye moderate. Shields of head regular (in one species anomalous), generally one loreal, two nasals (sometimes united); never more than two anterior and three posterior oculars, generally two posterior ones. Scales moderate, smooth (in one genus partially granulated), not much imbricate, equal, almost in fifteen to nineteen rows. Ventral plates without keels. Subcaudals two-rowed. Anterior teeth always shortest; no longer tooth in the middle of the series.

*Coronella*, *Schlegel, Ess.* ii. p. 50.



*Synopsis of the Genera.*

1. SIMOTES. Rostral conical, protruding, extending backwards between the anterior frontals. Scales in seventeen or nineteen rows. East Indies; North America; Algiers.
2. ABLABES. Rostral moderate. All teeth equal. All scales smooth. United States; Africa; Asia.
3. TRACHISCHIUM. Scales of the ischiadic region provided with granulated keels. Sikkim.
4. PSAMMOPHYLAX. Rostral rounded, not protruding, with a long posterior process. South Africa.
5. TACHYMENIS. Either two anterior oculars and a separate loreal, or loreal united with lower ocular. Posterior maxillary tooth grooved. South Europe; Chili.
6. CORONELLA. Rostral moderate; one anterior ocular. Posterior maxillary tooth either smooth, longer, and in a continuous row with the anterior ones, or grooved. Almost every part of the globe.
7. LIOPHIS. Rostral moderate; posterior maxillary tooth longest, smooth, and separated from the anterior ones by an interspace. Warmer parts of America.
8. ERYTHROLAMPRUS. Body encircled by black rings. Posterior maxillary tooth grooved. South America.
9. HYPsirhynchus. Forehead concave; muzzle pointed and raised. Barbadoes.

1. SIMOTES, *Dum. & Bibr.*

Head short, conical, not distinct from neck; rostral shield as in *Oligodon*, rather flat in front, pointed behind, and far produced backwards between the anterior frontals; two nasals, nostril between; one anterior ocular (in one species three), two posterior oculars. Scales smooth, in seventeen or nineteen rows (Duméril's *S. trinotatus* twenty-one?). Posterior maxillary teeth longest, smooth. Crown of head with regular, generally arrow-shaped marks. East Indies. (North America; Algiers.)

*Simotes*, *Dum. & Bibr.* vii. p. 624. *Heterodon*, sp., *Dum. & Bibr.* vii. p. 778. *Coronella*, sp., *Schleg. Ess.* ii. p. 77, 79, and *Heterodon*, sp., *id.* p. 102, and *Xenodon*, sp., *id.* p. 90. *Rhinostoma*, sp., *Holbrook, N. Amer. Herpet.* iii. p. 125; *Baird, Girard Catal.* p. 118. *Coronella*, sp., *Boie, Isis*, 1827, p. 539. *Elaps*, sp., *Coluber*, sp., *auct. prior.*

## 1. SIMOTES OCTOLINEATUS.

*Russell, Ind. Serp.* ii. t. 38. *Elaps octolineatus*, *Schneid. Hist. Amph.* p. 299. *Coluber octolineatus*, *Shaw, Gen. Zool.* iii. p. 540; *Merr. Tent.* p. 145; *Daud. Rept.* vii. p. 17. *Coronella octolineata*, *Boie, Isis*, 1827, p. 539, 556; *Schleg. Ess.* ii. p. 77. *Simotes octolineatus*, *Dum. & Bibr.* vii. p. 634.

Ferruginous, with two broader dorsal, and two or three narrower, lateral, black, longitudinal lines.

- a. Adult. Sumatra. Presented by Mrs. J. Crosley.
- b. Adult: not good state. Borneo. From Mr. Low's Collection.
- c. Half-grown: head injured. Java. Presented by J. Bowring, Esq.
- d. Nearly adult. India. Presented by General Hardwicke.
- e-h. Young and egg. India.
- i. Adult: bad state. India.
- k. Half-grown. India. Presented by Capt. Sir E. Belcher.
- l. Young: bad state. India.
- m. Half-grown. India. Presented by General Hardwicke.
- n. Large specimen. India. Presented by the College of Surgeons.

## 2. SIMOTES BINOTATUS.

*Simotes binotatus*, *Dum. & Bibr.* p. 630.

Whitish; back with a row of pairs of black, white-edged, confluent, quadrangular spots; on each side a row of smaller ones. Anal bifid. Scales in seventeen rows.

- a, b. Adult. Madras. Presented by J. C. Jerdon, Esq.

## 3. SIMOTES RUSSELLII.

*Russell, Ind. Serp.* i. t. 35 & 38. *Coluber arnensis*, *Shaw, Gen. Zool.* iii. p. 526. *Coluber russellii*, *Daud. Rept.* vi. t. 76. f. 2; *Merr. Tent.* p. 98. *Coronella russellii*, *Schleg. Ess.* ii. p. 79. *Simotes russellii*, *Dum. & Bibr.* vii. p. 628.

Above ferruginous, with twenty to forty narrow, continuous, black, white-edged cross bands; belly uniform whitish.

- a. Adult. India. Presented by General Hardwicke.
- b. Adult. India. Presented by W. C. Masters, Esq.
- c. Adult. India.
- d. Adult. Ceylon. Presented by Sir G. Banks.

- e.* Adult. Madras. Presented by the Rev. G. Smith.
- f.* Adult. Nepal. Presented by B. H. Hodgson, Esq.
- g.* Half-grown. Nepal. Presented by B. H. Hodgson, Esq.
- h.* Half-grown: head injured. Malabar. From M. Parzudaki's Collection.
- i, k.* Adult and young: bad state. India. Old Collection.
- l.* Adult: very bad state. India. Old Collection.
- m.* Adult. India.
- n.* Young. India.
- o.* Adult. India. (Cross bands very large and broad, lozenge-shaped: fine specimen.)

#### 4. SIMOTES PURPURASCENS.

*Xenodon purpurascens*, Schleg. *Ess.* pl. 3. f. 13, 14, and *Abbildg.* pl. 14; *Dum. & Bibr.* p. 753; *Cantor, Catal.* p. 67. *Coronella albocincta*, *Cantor, Proc. Zool. Soc.* 1839, p. 50. *Simotes albocincta*, *Dum. & Bibr.* p. 633. pl. 82. f. 1.

Above purple or brown, either uniform or with lighter, black-edged cross bands; cross bands sometimes formed of two or three confluent quadrangular spots. Scales in seventeen or nineteen rows. Anal entire.

Var. A. Entirely uniform brown.

- a.* Adult. Ceylon. Presented by Captain Gascoigne.
- b.* Adult: bad state. India. From the Haslar Collection.

Var. B. Brown, with very indistinct cross bands; belly with square black blotches.

- c.* Adult. India. From Mr. Warwick's Collection.

Var. C. Purple, marbled with brown; back with a row of two or three quadrangular, lighter, black-edged spots, confluent into cross bands; belly uniform whitish.

- d.* Adult. Java.
- e, f.* Adult. Philippines. From Mr. Cuming's Collection.

Var. D. Like former, but belly with large square black blotches.

- g.* Adult: bad state. Khasya. Presented by Dr. J. Hooker.
- h.* Half-grown. Khasya. Presented by Dr. J. Hooker.

Var. E. Purple, with rather narrow, lighter, black-edged cross bands; belly marbled with brown, or with square spots.

- i.* Adult. Khasya. Presented by Dr. J. Hooker.
- k.* Adult. India. Presented by the Zoological Society.

Var. F. Belly uniform whitish; above purple; in younger individuals a dorsal series of whitish escutcheon-like spots, the tip of which is turned towards the front, emitting on each side an oblique whitish streak towards the belly; an obsolete, very narrow, whitish streak always between two spots. In older individuals the spots are narrow, on the back broader, whitish, darker-edged cross bands, alternating with much narrower whitish transverse streaks.

*l.* Adult. Singapore. Presented by General Hardwicke.

*m.* Half-grown. Singapore. From the Haslar Collection.

### 5. SIMOTES COCCINEUS.

Bead-snake, *Catesby, Nat. Hist. of Carol.* pl. 60. *Coluber coccineus*, *Blumenbach in Voigt's Magazin*, v. pl. 5; *Gmel. Syst. Nat.* p. 1097; *Harlan in Journ. Acad. Nat. Sc. Philad.* v. 1827, p. 356, and *Med. Phys. Researches*, 1835, p. 119; *Latr. Rept.* iv. p. 138; *Daud. Rept.* vii. pl. 83. f. 1. *Elaps coccineus*, *Merr. Tent.* p. 145. Harlequin-snake, *Audubon, Birds*, t. 52. *Heterodon coccineus*, *Schleg. Ess.* pl. 3. f. 15, 16. *Rhinostoma coccinea*, *Holbr. N. Amer. Herpet.* iii. pl. 30; *Baird & Girard, Catal.* p. 118. *Simotes coccineus*, *Dum. & Bibr.* vii. p. 637. pl. 82. f. 2.

Rostral very prominent, but rounded, and not compressed into a ridge. Whitish (in spirits), crossed by pairs of narrow black bands, the posterior of each pair always forming with the anterior of the next pair a complete ring.

*a.* Adult. Charlestown. From M. Parzudaki's Collection.

*b.* Half-grown. North Carolina. Old Collection.

*c.* Half-grown. South America. From the Leyden Museum.

*d, e.* Adult: discoloured. America. Old Collection.

*f.* Adult: very bad state. America.

*g.* Half-grown. America.

*h-l.* Adult. America. Presented by the College of Surgeons.

Var. Back with equidistant black cross bars, not reaching the side of belly; sides irregularly black-spotted; belly with a black medial band. Scales in seventeen rows. Perhaps a distinct species.

*m.* Half-grown: bad state. Venezuela. From Mr. Dyson's Collection.

### 6. SIMOTES DIADEMA.

*Heterodon diadema*, *Dum. & Bibr.* p. 770.

Three anterior, two posterior oculars. Whitish, with a dorsal



series of large blackish spots, alternate with smaller ones on the side.

a. Adult. Algiers. From M. Parzudaki's Collection.

b. Half-grown: very bad state. North Africa.

## 2. ABLABES, *Dum. & Bibr.*

Body rather elongate and slender; head moderate, rather depressed, with flat crown; rostral moderate; two nasals, nostril between them (in *A. modesta* united); one loreal, one or two anterior, two posterior oculars. Scales smooth, elongate, in thirteen to nineteen rows. All teeth equal, smooth. Generally a collar. United States; Africa; Asia.

Ablabes, sp., *Enicognathus*, sp., *Dum. & Bibr.* vii. p. 304. Calamaria, sp., *Coronella*, sp., *Herpetodryas*, sp., *Schleg. Ess.* ii. pp. 39, 50, 194. *Lycodon*, sp., *Gray, Indian Zoology.* *Homalosoma*, sp., *Wagl. Syst. Amph.* p. 191. *Coluber*, sp., *auct. prior.*

### 1. ABLABES MODESTUS.

*Coronella modesta*, *Martin, Proc. Zool. Soc.* 1838, p. 82.  
? *Tyria argonauta*, *Eichw. Faun. Caspio-Caucas.* p. 114. t. 26.  
f. 1, 2.

Scales in seventeen rows; upper labials seven, third and fourth touching the eye. Olive; crown of head black (sometimes only dark olive); suture of occipitals lighter; neck with a black (sometimes only dark olive) collar; beneath uniform whitish.

a-d. Adult. *Xanthus*.

e-z. Adult and half-grown. *Xanthus*. Presented by Sir C. Fellows.

a. Many specimens. Half-grown and young. *Xanthus*.

β, γ. Young. *Euphrates Expedition*.

δ. Young. Ruins of Nineveh. Presented by — Loftus, Esq.

ε. Adult. *Xanthus*. From the Haslar Collection.

Especially adult specimens exhibit, instead of the black marks, the head and collar only dark olive-coloured, and they may then be very easily confounded with younger individuals of *Zamenis atrovirens*; but they may be distinguished by the number of scales and upper labials, as well as by the dentition. Moreover, *A. modestus* is the only species of the genus having only one nasal.

## 2. ABLABES MELANOCEPHALUS.

*Lycodon melanocephalus*, Gray, *Ind. Zool.* pl. . f. 2.

Scales in seventeen rows; upper labials nine, fourth, fifth and sixth touching the eye. Above light brown, with two white longitudinal streaks, beginning from the occiput, becoming indistinct towards the hinder parts of body, and interrupted by quadrangular, equidistant, black spots; crown of head and neck dark brown; beneath whitish, with a lateral punctated line.

*a-c.* Adult. India. Presented by General Hardwicke.

## 3. ABLABES COLLARIS.

*Psammophis collaris*, Gray, *Ann. & Mag. Nat. Hist.* 1853, p. 390.

Scales in seventeen rows; upper labials nine, fourth, fifth and sixth touching the eye. Above olive, very minutely black-speckled; crown of head dark brown, variegated with olive; neck with a broad, dark brown, yellow-edged collar; the yellow edges crossed by a medial dark brown streak, continued as a dorsal series of small, equidistant, brown spots; beneath yellowish, each ventral shield on the sides with a black speck.

*a, b.* Adult and half-grown. Khasya. Presented by Dr. J. Hooker. Dark olive, nearly brown.

*c.* Adult: bad state. Nepal. Presented by B. H. Hodgson, Esq.

*d.* Half-grown. Madras. Presented by J. E. J. Boileau, Esq.

*e.* Adult. Ceylon. Presented by R. Templeton, Esq.

*f-i.* Young. India. Presented by W. Masters, Esq.

*k, l.* Young. India.

*m-p.* Young. India. Presented by General Hardwicke.

*q.* Adult. India.

*r.* Adult. India. Presented by the College of Surgeons.

*s.* Adult: injured. India. Presented by the Zoological Society.

*t-x.* Half-grown. India.

## 4. ABLABES PUNCTATUS.

*Coluber punctatus*, Linn. *Syst. Nat.* i. p. 376; *Lacép.* ii. p. 287; *Bonnat. Ophiol.* p. 10; *Latr. Rept.* iv. p. 136; *Daud.* vii. p. 178; *Merr. Tent.* p. 136; *Harlan, Journ. Acad. Nat. Sc. Philad.* 1827, p. 354, and *Med. Phys. Res.* 1835, p. 117; *Storer, Reports*, p. 225; *Holbr. N. Amer. Herpet.* iii. t. 18. *Coluber torquatus*, Shaw, *Zool.* iii. p. 553. *Homalosoma punctatum*, Wagl. *Syst. Amph.* p. 191. *Spilotes punctatus*, Swains. *Nat. Hist.* p. 364.

*Calamaria punctata*, *Schleg. Ess.* ii. p. 39. *Ablabes punctatus*, *Dum. & Bibr.* p. 310. *Diadophis punctatus*, *Baird & Girard Catal.* p. 112.

Scales in fifteen rows; upper labials eight, fourth and fifth touching the eye. Above black, with a yellowish occipital ring; beneath yellowish, with three rows of small black spots, the medial one sometimes absent.

*a.* Adult. North America.

*b.* Half-grown. North America. From Mr. Stevens's Collection.

*c.* Half-grown. Chippeway, Canada.

*d.* Young. Delaware. Presented by Henry Doubleday, Esq.

#### 5. ABLABES OCCIPITALIS.

Scales in fifteen rows; upper labials seven, third and fourth touching the eye. Above black; on each side of the neck a yellow streak, not confluent on the occiput; beneath yellowish, with three rows of small black spots.

*a.* Adult. Mexico.

*b.* Adult. United States.

#### 6. ABLABES BALIODEIRUS.

*Coronella baliodeira*, *Boie*; *Schleg. Ess.* ii. f. 9, 10; *Cantor, Catal.* p. 66. *Ablabes baliodeirus*, *Dum. & Bibr.* p. 313.

Scales in thirteen rows; upper labials seven. Above uniform brownish or black, on the anterior part generally with some white spots, disposed in cross bands; uniform yellowish beneath.

*a.* Adult. Java. From the Leyden Museum.

*b.* Adult: tail injured. Borneo. Presented by Captain Sir Edward Belcher. No white spots.

#### 7. ABLABES GEMINATUS.

*Coluber geminatus*, *Oppel, Mus. Paris.* *Herpetodryas geminatus*, *Schleg. Ess.* ii. p. 194. *Enicognathus geminatus*, *Dum. & Bibr.* p. 333. *Lycodon catenatus*, *Gray, Ind. Zool. t.* . f. 2.

Scales in fifteen or seventeen rows; upper labials nine, the fourth, fifth and sixth touching the eye. Brown, with a broad white collar, and two parallel white longitudinal streaks; belly white, but the brown coloration of the back extending on the edges of the abdomen.

*a.* Adult. Java. From the Leyden Museum.

*b.* Adult. Sumatra. From the Collection of the Zoological Society.

We were not able to find the original specimen, figured by Dr. Gray in the 'Indian Zoology,' pl. . f. 2, and named by him *Lycodon catenatus*. The comparison of specimens would no doubt show the identity of both snakes, and the priority of the latter denomination as the first published.

### 8. ABLABES RUFULUS.

*Coronella rufula*, *Lichtenstein, Verz. der Doubletten*, p. 105; *Schleg. Ess.* pl. 2. f. 18, 19. *Lamprophis rufulus*, *Smith, Ill. of S. Afr.* pl. 58. *Ablabes rufula*, *Dum. & Bibr.* p. 308.

Scales in nineteen rows; anal entire; upper labials eight, fourth and fifth coming into the orbit. Above uniform brownish or black; the uniform whitish coloration of belly generally extending on the sides.

- a.* Adult. Cape of Good Hope. From the Leyden Museum.
- b, c.* Adult. Cape of Good Hope.
- d.* Adult. Cape of Good Hope. Presented by Dr. Lee.
- e, f.* Adult. South Africa.
- g.* Adult: injured. South Africa.
- h.* Adult: not good state. South Africa.
- i.* Young. South Africa.

Var. A blackish medial line under the tail.

- k.* Large specimen. Port Natal. Presented by the Rev. H. Calloway.
- l.* Adult. South Africa. From the Haslar Collection.

See *Coronella olivacea*, which is similar in general appearance.

### 3. TRACHISCHIUM, Günther.

Body and tail moderate; head rather small, depressed, pointed in front, distinct from neck; one loreal, one anterior, one posterior ocular; two nasals, nostril between. Scales in thirteen rows; all smooth except those of the ischiadic region, which are provided with granular keels. Teeth equal, not grooved. Sikkim.

#### 1. TRACHISCHIUM RUGOSUM.

Uniform black.

- a.* Sikkim Himalaya. Presented by Dr. J. Hooker.

*Description.*—Habit like that of *Coronella laevis*; head rather smaller, eyes small. Rostral shield moderate, rounded above, just reaching the surface of head; anterior frontals moderate; posterior ones united, forming an azygos broad shield; this



may be only accidental in the individual; vertical moderate, rather broad, with an acute angle behind; occipitals longer than superciliary and frontals together, divergent and rounded behind; one large posterior ocular, rounded behind; antecocular much smaller and not reaching the surface of crown; loreal elongate; two nasals, nostril between, and situated in front of the muzzle; six upper labials, foremost smallest, third and fourth reaching the orbit, last largest; one temporal in contact with posterior ocular, two or three smaller ones behind; first pair of lower labials forming a suture behind the medial one; two pairs of chin-shields, front pair largest. Scales shining, rhomboidal, rather large, in thirteen rows, perfectly smooth, except those of the five outer rows above the anus (*regio ischiadica*). The scales only of twenty transverse rows before the anus, and of thirteen of the tail are keeled, and each keel exhibits the peculiarity of being provided with one or two tubercles. Anal and subcaudals bifid. Entirely uniform black, beneath paler. Length of cleft of mouth  $\frac{1}{3}$ " ; length of tail  $2\frac{1}{4}$ " ; total length 13".

#### 4. PSAMMOPHYLAX, *Fitzinger*.

Rostral shield produced backwards between the anterior frontals, so as often to reach the posterior frontals; one anterior, two posterior oculars; one loreal; two nasals, the nostril between them and the anterior frontal; vertical narrow; scales narrow, ovate, moderate, in seventeen or nineteen rows; anal bifid. Eye moderate, pupil round; body and tail of moderate length; belly slightly flattened; head with flat crown, rather high, distinct from neck, pointed in front. Posterior maxillary tooth longest, grooved; anterior teeth in both jaws equal in length. South Africa.

*Psammophylax*, *Fitz. Syst. Rept.* p. 26. *Dipsas*, sp., *Dum. & Bibr.* vii. p. 1154. *Trimerorhinus*, *A. Smith, Ill. of S. Afr.* p. . *Coronella*, sp., *Boie, Schlegel, Laurenti*. *Coelopeltis*, sp., *Wagl.* *Coluber*, sp., *Cerastes*, sp., *auct. prior*.

#### 1. PSAMMOPHYLAX RHOMBEATUS.

*Psammophylax rhombeatus*, *Seba*, ii. 15. 2. 79. 2. *Coluber rhombeatus*, *Linn. Mus. Ad. Fried.* pl. 24. f. 2 (very bad), and *Syst. Nat.* ed. xii. p. 380; *Shaw, Gen. Zool.* iii. p. 437; *Latr. Rept.* iv. p. 150; *Daud. Rept.* vii. p. 119; *Merr. Tent.* p. 111. *Cerastes rhombeatus*, *Coronella tigrina*, *Coluber elegantissimus*, *Laurenti, Syn. Rept.* pp. 82, 87 & 96; *Daubent. Quadr. Ovip.*

*Serp.* p. 668; *Lacép. Quadr. Ovip. Serp.* ii. p. 212; *Bonnat. Ophiol.* pl. 16. f. 24. *Coluber rhombeatus* and *C. tigrinus*, *Gmel. Syst. Nat.* pp. 1099, 1113. *Coronella rhombeata*, *Boie, Isis*, 1827, p. 539; *Schleg. Ess.* pl. 2. f. 14, 15. *Cœlopeltis rhombeata*, *Wagl. Syst. Amph.* p. 189, and *Icon.* 1. 32. *Psammophylax rhombeatus*, *Fitz. Syst. Rept.* p. 26. *Trimerorhinus rhombeatus*, *Smith, Ill. of S. Afr.* pl. 56 (Schaap-sticker). *Dipsas rhombeata*, *Dum. & Bibr.* vii. p. 1154.

Grey or yellowish brown, with three or four longitudinal rows of ovate or rhomboid, dusky, black-edged blotches.

- a, b.* Adult. Cape of Good Hope. From the Haslar Collection.
- c.* Adult. Cape of Good Hope. Presented by Mr. Ford.
- d.* Adult. Cape of Good Hope. Presented by the Earl of Derby.
- e.* Adult: head injured. Cape of Good Hope.
- f.* Adult. Cape of Good Hope. From the Berlin Museum.
- g, h.* Half-grown. Cape of Good Hope. Presented by Captain Ashburne.
- i.* Half-grown. Cape of Good Hope.
- k.* Half-grown: injured. Cape of Good Hope. Presented by Dr. Lee.
- l.* Young: head injured. Cape of Good Hope.
- m.* Young. Cape of Good Hope. Presented by the Earl of Derby.
- n-p.* Young: bad state. Cape of Good Hope. Presented by Mr. Wing.
- p'.* Young: bad state. Cape of Good Hope.
- q.* Adult. South Africa.
- r, s.* Adult and half-grown. South Africa.
- t.* Adult. South Africa.
- u-w.* Adult. South Africa. From Mr. Argent's Collection.
- x.* Adult. South Africa. Old Collection.
- y.* Adult. South Africa.
- z, a.* Adult. South Africa. From the Haslar Collection.
- β, γ.* Adult. South Africa. From the Haslar Collection.
- δ.* Adult. South Africa. From the Haslar Collection.
- ε.* Adult. South Africa. From the Haslar Collection.
- η.* Adult. South Africa. From the Haslar Collection.
- θ, ζ.* Adult. South Africa. From Mr. Argent's Collection.
- ι.* Adult. South Africa. Presented by Sir J. Macgrigor.
- κ.* Half-grown. South Africa. From the Haslar Collection.
- λ.* Half-grown. South Africa.
- μ.* Half-grown. South Africa. (Belly red.)
- ν.* Half-grown. South Africa.

ξ, o. Nearly half-grown: not good state. South Africa. From Mr. Argent's Collection.

Var. Spots confluent into three longitudinal bands.

π. Adult. Port Natal. Presented by the Rev. H. Calloway.

### 5. TACHYMENIS, Wiegmann.

Body rather stout; tail rather short; belly rounded; head with flat crown, short, broad behind, distinct from neck, pointed and rounded in front; rostral shield small, rounded above, hardly reaching the surface of head; either two ante-orbitals and one separate square loreal, or one ante-orbital and an elongated loreal, reaching the eye (the lower ante-orbital united with the loreal); two posterior orbitals. Scales moderate (in nineteen rows), rhombic. Anal bifid. Eye moderate, pupil subelliptical; nostril between two shields. Posterior maxillary teeth longest furrowed, anterior equal in length; anterior teeth of the lower jaw longer than the following (in both species).

Tachymenis, *Wieg. Act. Nov. Acad. Cæs. Leop.* 1834, p. 252. Tarbophis and Dipsas, sp., *Dum. & Bibr.* vii. pp. 911 and 1159. Coronella, sp. and Dipsas, sp., *Schleg. Ess.* ii. pp. 70 & 295. Ailurophis, (*Michah.*) *Bonap. Amph. Eur.* p. 44. Trigonophis, *Eichw. Zool. Spec. Ross.* iii. p. 174. Ophis, sp., (*Fitz.*) *Tschudi, Wieg. Archiv*, 1845, p. 165. Tarbophis, *Fleischmann, Dalmat. Nov. Serp. Genera, Dissert. Erlangen*, 1831. Coluber, sp., *Fitzinger, Savigny*.

#### 1. TACHYMENIS VIVAX.

*Savigny. Eg. Rept. Suppl.* pl. 4. f. 21-23. Coluber vivax, *Fitz. Neue Classif. Rept.* p. 57. Tarbophis fallax, *Fleischmann, Dissert. Erlangen*, 1831, t. 1. Trigonophis iberus, *Eichw. Zool. Spec. Ross.* iii. p. 175, and *Fauna Caspio-Caucas.* t. 18 (not good). Ailurophis vivax, *Bonap. Faun. Ital.* t. . Dipsas fallax, *Schleg. Ess.* t. 11. f. 35, 36; *Nordmann, Voy. Russie Mérid.* iii. pl. 4. f. 2. Tarbophis vivax, *Dum. & Bibr.* vii. p. 913.

Upper labials eight, the third, fourth and fifth touching the eye; only one anterior ocular, but the loreal reaching the orbit; above greyish or light brown, with a vertebral series of large dark brown blotches, and on each side a row of smaller spots; beneath whitish, brown-marbled; a pale brown streak from the eye to the angle of mouth.

a. Adult. Xanthus. Presented by Sir C. Fellows.

b. Half-grown. Dalmatia.



## 2. TACHYMENIS CHILENSIS.

*Coronella Chilensis*, *Schleg. Ess.* ii. p. 70; *Guichenot, Faun. Chil. Rept.* pl. 4. f. 1. *Ophis peruana*, (*Fitz.*) *Tschudi, Faun. Per. Rept.* p. 58; *Wiegmann, Archiv*, 1845, p. 165. *Dipsas chilensis*, *Dum. & Bibr.* vii. p. 1159.

Upper labials seven, the third and fourth touching the eye; two anterior oculars; above brown, with four longitudinal blackish-brown bands, reaching the end of tail; the dorsal pair confluent on the crown and forming there an acute angle, the two laterals doing so on the forehead; the angles sometimes not sharp, obsolete; the bands with distinct black spots; beneath with three series of black spots, sometimes confluent and covering the whole abdomen; a black streak from the eye to the angle of mouth.

- a. Adult. Chili. From Mr. Warwick's Collection.
- b. Adult. Chili. From Mr. Bridges' Collection.
- c. Adult: bad state. Chili.
- d. Adult. Colchagua.
- e. Adult. Tichitata. Presented by J. B. Pentland, Esq.
- f. Adult. Chili.
- g. Adult. [Chili?] From M. Parzudaki's Collection.

6. CORONELLA, *Laurenti*.

Body and tail moderate, rounded; head moderate, with rather short rounded muzzle, flat above, more or less distinct from neck; rostral moderate; two nasals, nostril between (in one species united); one loreal (in one species united with the frontal); one anterior, two (in two species three) posterior oculars. Scales smooth, rather short, rhomboid, in fifteen to twenty-nine rows. Posterior maxillary teeth longest, either grooved or smooth, in a continuous row with the anterior ones. Almost every part of the globe.

*Coronella, Laurenti, Syn. Rept.* p. 84; *Holbr. N. Amer. Herpetol.*; *Dum. & Bibr.* vii. p. 607. *Lycognathus*, sp., *Dipsas*, sp., *Dum. & Bibr.* pp. 926, 1162. *Amplorhinus, Smith, Ill. of S. Afr.* *Coronella*, sp., *Boie, Isis*, 1827, p. 539; *Schleg. Ess.* ii. p. 50. *Herpetodryas*, sp., *Schleg. l. c.* p. 198. *Zacholus, Wagl. Nat. Syst. Rept.* p. 190. *Coluber*, sp., *auct. prior*.

## 1. CORONELLA AUSTRIACA.

*Coronella austriaca, Laurenti, Synops.* pl. 5. f. 1. *Coluber austriacus, Shaw, Zool.* iii. p. 515; *Sturm, Deutsche Fauna*, t. A. B.; *Lenz, Schlangenkunde*, p. 505. t. 7. f. 10; *Bonap. Faun. Ital.* pl. . *Coluber lævis, Lacép. Quadr. Ovip. Serp.* ii. p. 158;



*Daud. Rept.* vii. p. 19; *Merr. Tent.* p. 101. *Coluber thuringicus*, *Bechstein's Uebers. von Lacép.* iii. p. 181. *Coluber ferrugineus*, *Sparmann, N. Schw. Abhandl.* xvi. t. 7. A. B. *Zacholus austriacus*, *Wagl. Syst. Amph.* p. 190. *Coronella lævis*, *Boie, Isis*, 1827, pp. 519, 539; *Schleg. Ess.* pl. 2. f. 12, 13; *Dum. & Bibr.* p. 610.

Scales in twenty-one rows; anal bifid; upper labials seven. Brown: back with two, sometimes confluent, series of irregularly rounded dark spots. Hinder maxillary tooth smooth.

*a.* Adult. France.

*b, c.* Adult. Hanover. Presented by Dr. J. E. Gray.

*d.* Half-grown. Italy. Presented by J. J. Bianconi.

*e.* Half-grown. Europe. From the Collection of the Zoological Society.

## 2. CORONELLA GIRONDICA.

*Coluber girondicus*, *Daud. Rept.* vi. p. 432; *Cuv. Règne Anim.* *Coluber riccioli*, *Metaxa, Mon. del Serp. di Roma*, f. 3, 4; *Bonap. Faun. Ital.* pl. . *Coronella girondica*, *Dum. & Bibr.* p. 612.

Scales in twenty-one rows; anal bifid; upper labials eight. Brown, with a dorsal series of irregularly rounded dark spots; on each side of belly a series of quadrangular dark spots. Hinder maxillary tooth smooth.

*a.* Adult. Italy. Presented by J. J. Bianconi.

## 3. CORONELLA CUCULLATA.

*Couleuvre à capuchon*, *Geoffr. Descr. de l'Eg. Rept.* pl. 8. f. 3. *Coronella lævis*, var., *Schleg. Ess.* ii. p. 69. *Lycognathus cucullatus*, *Dum. & Bibr.* p. 926.

Scales in nineteen rows; anal bifid and not entire; upper labials eight. Light brown: on each side of the neck a dark streak, confluent on the crown; neck with a dark spot, sometimes confluent with former, and forming a large black spot, covering the occiput and neck. Hinder maxillary teeth grooved.

*a-c.* Adult and half-grown. Tunis. From Mr. Fraser's Collection.

*d.* Adult. Algiers.

*e.* Half-grown. Tangiers.

*f-h.* Adult and half-grown. Tripoli. From the Collection of the Zoological Society.

*i.* Adult: not good state. N. Africa. Presented by J. Burton, jun., Esq.

## 4. CORONELLA DECORATA.

Scales in seventeen rows; anal bifid; upper labials eight,

the fourth and fifth coming into the orbit. Back greyish olive, the darker coloration of the sides well defined towards the back; a black streak through the eye; on both sides of the anterior part of trunk a bright yellow band, soon disappearing, beginning from the eye, but twice interrupted, so as to form a yellow spot behind the eye, and a second on each side of occiput. Belly yellowish, on each side of the ventral plates a small black spot. Hinder maxillary tooth longest, smooth, in a continuous row with the anterior ones.

*a, b.* Adult. Mexico. From M. Sallé's Collection.

#### 5. CORONELLA FISSIDENS.

Scales in twenty-one (nineteen) rows; anal bifid; upper labials eight, the fourth and fifth coming into the orbit. Back greyish olive, the darker coloration of the sides well defined towards the back; a black streak, sometimes beneath white edged, through the eye; on both sides of the anterior part of trunk a white band, beginning from the occiput, and soon disappearing. Belly white, on the sides some irregular small black spots. Hinder maxillary tooth longest, channeled.

*a.* Adult. Mexico. From M. Sallé's Collection.

*b.* Adult: tail injured. Mexico. From M. Sallé's Collection.

*c.* Adult. Mexico. From M. Sallé's Collection.

*d.* Adult: not good state. Mexico. From Hugo Finck's Collection.

*e, f.* Adult and young. America. From M. Sallé's Collection.

*g, h.* Adult. America. Scales in nineteen rows.

#### 6. CORONELLA BIPUNCTATA.

Scales in twenty-one rows; anal bifid. Back brown, the darker coloration of the sides well defined towards the back; beneath yellowish, along the middle of belly two punctated lines. Posterior maxillary tooth longest, grooved.

*a.* Adult, male. Sine patria.

*Description.*—Body moderate; tail rather elongate; head rounded, rather pointed in front, flat above, distinct from neck. Rostral just reaching the surface of head; anterior frontals small, posterior much larger; occipitals moderate, rounded behind; vertical nearly twice as long as broad, with somewhat concave lateral edges; nostril between two shields; one square loreal, one anterior, two posterior oculars; eight upper labials, the fourth and fifth coming into the orbit; one elongate temporal shield in front, four or five smaller ones behind. Scales rhomboid, rather small, in twenty-one rows; anal bifid. Above brown, with a very indistinct darker dorsal streak;

darker coloration of the sides well defined towards the back; upper labials yellowish above, black-edged; beneath yellowish; from the chin to the tip of the tail two punctated lines, each ventral plate being provided with two black spots towards the middle; there is another indistinct punctated line on each edge of abdomen. Length of cleft of mouth  $\frac{1}{2}$ "; length of tail  $5\frac{1}{2}$ "; total length 17".

7. *CORONELLA JAEGERI*.

Scales in seventeen or nineteen rows; anal bifid; posterior oculars two; above uniform dark olive, beneath paler. Posterior maxillary tooth longest, smooth, in a continuous row with the anterior ones.

*a.* Adult. Brazil. From Dr. Gardiner's Collection.

*b.* Half-grown. Brazil. From M. Clausen's Collection.

*Description.*—Body and tail moderate; head small, not distinct from neck; shields of head regular and proportionate; vertical with nearly parallel lateral edges; eight upper labials, fourth and fifth forming the lower edge of orbit; first pair or lower labials forming a suture behind the terminal one; three temporal shields, anterior one largest and in contact with both posterior oculars. Scales rhomboid, in seventeen or nineteen rows. Anal bifid. Posterior maxillary teeth longest, not grooved, in a continuous row with the anterior ones. Above uniform dark olive, beneath paler. The anterior ocular in the younger individual reaches the vertical shield, in the older one it is raised on the crown, but does not reach that shield. Length of cleft of mouth  $\frac{5}{8}$ "; length of tail  $4\frac{1}{2}$ "; total length 23".

The species is named in honour of Dr. G. v. Jaeger, of Stuttgart, the renowned author on fossils.

8. *CORONELLA ANOMALA*.

Scales in nineteen rows; anal bifid. Brown, with two yellow longitudinal lines; a series of black spots between; on each side a series of black spots. Posterior maxillary tooth longest, smooth. [Loreal united with posterior frontal; an azygos shield between the posterior frontals.]

*a.* Adult: tail injured. Banks of the Parana. From the Haslar Collection.

*Description.*—Habit like that of *Coron. austriaca*; head moderate, with flat crown and rather broad, rounded muzzle. Rostral shield rather large, broader than high, just reaching the surface of head; anterior frontals pointed in front, moderate; three posterior frontals, one quadrangular medial one, and two



laterals; the latter united with the loreal, and forming only one shield, in contact with the second and third upper labials: as this may be only accidental in the individual, I do not venture to form a new genus for the species. Vertical shield elongate, five-sided, with nearly parallel lateral edges and a rather obtuse angle behind; occipitals rather small, pointed and divergent behind; superciliaries narrow, elongate; anterior ocular just reaching the surface of crown; two posterior ones; loreal none; two nasals, nostril between; eight upper labials, fourth and fifth forming the lower edge of orbit; one elongate temporal shield in contact with both posterior oculars, three or four smaller ones behind. Scales smooth, rhomboidal, in nineteen rows; anal bifid. Posterior maxillary teeth longest, not grooved, in a continuous row with the remainder. Above brownish olive, with two narrow yellow longitudinal streaks from the occiput to the tip of tail; between the streaks a row of about ninety black cross bars, each formed of two spots; on the sides a series of similar black cross bars, alternate with the dorsal series; each of the lateral cross bars provided with two or three yellow specks; crown of head black; vertical with two yellow spots behind; beneath uniform yellowish; outer edges of some ventral plates black, and forming a lateral series of equidistant spots. Length of cleft of mouth  $\frac{2}{3}$ "; length of the injured tail  $2\frac{1}{2}$ "; length of trunk 18"; length of the restored tail 5".

#### 9. CORONELLA ELEGANS.

*Lygophis elegans*, Tschudi, *Fauna Peruana*, *Herpetol.* p. 53. t. 6.

Scales in fifteen rows; anal bifid; eight upper labials, the third, fourth and fifth coming into the orbit. Above olive, with a dorsal series of brown spots, forming on the neck a continuous zigzag line, and on the tail a straight streak; beneath whitish; throat minutely black-specked; on the anterior part a lateral punctated line.

a. Adult. Peru? From M. Parzudaki's Collection.

#### 10. CORONELLA MULTIMACULATA.

*Amplorhinus multimaculatus*, Smith, *Ill. of S. Afr.* pl. 57. *Dipsas Smithii*, Dum. & Bibr. p. 1162.

Scales in seventeen rows; anal entire. Brownish olive above, with four series of black spots, and two more or less conspicuous whitish longitudinal lines; beneath greyish. Posterior maxillary teeth longest, grooved.

The only species of *Coronella* exhibiting united nasals.



- a. Adult: without intestines. Cape of Good Hope. Presented by the Earl of Derby.
- b. Adult: discoloured. South Africa.
- c, d. Adult. South Africa. From the Haslar Collection.

# 11. CORONELLA OLIVACEA.

*Coronella olivacea*, Peters in Wiegmann. Archiv, 1855, p. 52.

Scales in nineteen rows; anal bifid; three posterior oculars. Above uniform black; belly in the middle uniform white, the dark coloration of the back extending on the edges of abdomen. Hinder maxillary teeth longest, smooth, in a continuous row with the anterior ones. (See *Ablabes rufulus* and *Cor. fuliginoides*.)

- a. Adult female. Africa. From Mr. Argent's Collection.
- b. Adult male. Africa. From Mr. Argent's Collection.

*Description*.—Body rather elongate; tail moderate, pointed, but in both our specimens rather thick, even at the tip; head small, rather short, distinct from neck; eyes large; rostral shield hardly reaching the surface of head; anterior frontals small, pointed in front; posterior frontals moderate; vertical narrow; occipitals moderate; two nasals, one loreal, one anterior, three posterior oculars; ante-ocular just reaching the surface of head; eight upper labials, the fourth and fifth coming into the orbit; four or five temporal shields; scales rhomboid, in nineteen rows; anal bifid. Above uniform black; the coloration of back covering the edges of ventral plates, so as to be yellowish only in the middle of belly. In the stomach of one specimen I found some frogs. Length of cleft of mouth  $\frac{5}{8}$ " ; length of tail  $3\frac{1}{2}$ " ; total length  $18\frac{1}{4}$ " .

# 12. CORONELLA FULIGINOIDES.

Scales in seventeen rows; anal simple; three posterior oculars. Above uniform brownish black, with a lighter collar or an indistinct whitish spot on the neck; belly in the middle uniform white, the dark coloration of the back extending on the edges of abdomen.

- a. Adult male. West Africa. From the Haslar Collection.
- b. Half-grown. West Africa. From Mr. Rich's Collection.
- c. Half-grown. Old Calabar. Presented by — Logan, Esq.

Closely allied to the former; differing only in the above characters.

# 13. CORONELLA SEMIORNATA.

*Coronella semiornata*, Peters in Wiegmann. Archiv, 1855, p. 51.

Scales in twenty-one rows; anal bifid. Above olive; anterior

half of body semi-annulated with black; beneath white, base of ventral plates black.

*Hab.* Mozambique.

#### 14. CORONELLA CANA.

*Seba*, ii. 12. 2; *Scheuchzer*, t. 747. f. 5. *Coluber canus*, *Linn. Mus. Ad. Fried.* i. t. 11. f. 1; *Merr. Beitr.* iii. pl. 1; *Schleg. Ess.* pl. 6. f. 7, 8; *Lacép. Quadr. Ovip. Serp.* ii. p. 193; *Latr. Rept.* iv. p. 147; *Daud. Rept.* vi. p. 359. *Coluber margaritaceus*, *Merr. Tent.* p. 100. *Zwarte Slang*, *Levaillant, Voy. Afr.* i. p. 121. *Coronella cana*, *Dum. & Bibr.* vii. p. 613; *Smith, Ill. of S. Afr.* t. 14-17.

Head short, broad behind, sharply pointed in front; body thick. Scales in twenty-seven or twenty-nine rows; anal bifid.—In some specimens the longer posterior tooth of the upper jaw is smooth, in others it exhibits a linear groove near its base, which difference is quite independent of the variations of colour.

*A. Adult specimens*: uniform blackish ash or reddish brown.

- a.* Adult male (red). South Africa.
- b.* Adult. Cape of Good Hope. Presented by Dr. Lee.
- c.* Adult: head injured. Island of Schanna. From the Haslar Collection.
- d.* Adult. South Africa. From the Haslar Collection.
- e.* Adult. South Africa? (29 rows.)
- f.* Half-grown: not good state. South Africa? (29 rows.)
- g, h.* Adult. South Africa. Presented by the College of Surgeons.
- i.* Adult. South Africa. From the Haslar Collection.

*B. Younger specimens*: reddish brown, with darker, white-edged round spots.

- k.* Half-grown. Cape of Good Hope. Presented by Dr. Lee.
- l.* Young: injured. Cape of Good Hope. Presented by Dr. Lee.
- m.* Young. Cape of Good Hope. Presented by Dr. Lee.
- n.* Half-grown. South Africa. Presented by the College of Surgeons.

#### 15. CORONELLA AUSTRALIS.

Scales in seventeen rows; anal bifid. Above uniform olive, with a few small black specks; beneath uniform whitish. Longer maxillary tooth not channeled.

- a.* Adult. Australia. Presented by Sir J. Richardson.

*Description*.—Body moderate; tail moderate, thin, distinct from trunk; head rather broad and obtuse; shields of crown regular, proportionate; two nasals, one loreal, one ante-orbital, raised on the surface of the head, but not reaching the vertical; two posterior oculars; eight upper labials, fourth and fifth narrow, and coming into the orbit; one front temporal shield in contact with both postoculars; two other ones behind; first pair of lower labials forming a suture behind the terminal one. Scales moderate, rounded behind, in seventeen rows; anal bifid. Above nearly uniform olive, some scales with black tips or black-edged; beneath uniform yellowish. Longer maxillary teeth not grooved, in a continuous row with the anterior ones. Length of head  $\frac{3}{4}$ " ; length of tail 5" ; total length  $27\frac{1}{2}$ ".

#### 16. CORONELLA SAYI.

*Herpetodryas gætulus*, *Schleg. Ess.* ii. p. 198. *Coluber sayi*, *Dekay, New York Fauna, Rept.* p. 41. *Coronella sayi*, *Holbr. N. Amer. Herpet.* iii. pl. 22; *Dum. & Bibr.* vii. p. 619. *Ophibolus sayi*, *Baird & Girard, Catal.* p. 84; and in *Marcy, Explor. of the Red River*, pl. 7.

Scales in twenty-one rows; anal entire. Above black, with numerous round or linear small yellow spots; beneath yellowish white, with large irregular blotches of black.

- a. Adult. Central America. Presented by Mrs. Drummond.
- b, c. Adult. Texas. From Mr. Brandt's Collection.
- d. Adult. Louisiana.
- e. Adult. New Orleans. From M. Sallé's Collection.
- f, g. Half-grown. New Orleans. From M. Sallé's Collection.
- h. Skin of a very large specimen (6 feet long). North America. Old Collection.

#### 17. CORONELLA DOLIATA.

*Coluber doliatus*, *Linn. Syst. Nat.* p. 379; *Harlan, Journ. Acad. Nat. Sc. Philad.* v. p. 362, and *Med. Phys. Res.* 1835, p. 125; *Lacép. Quadr. Ovip. Serp.* ii. p. 294; *Latr. Rept.* iv. p. 126; *Daud. Rept.* vii. p. 74. *Coronella doliata*, *Boie, Isis*, 1827, p. 539; *Holbr. N. Amer. Herpet.* t. 24; *Dum. & Bibr.* vii. p. 621. *Ophibolus doliatus* and *O. gentilis*, *Baird & Girard, Catal.* pp. 89, 90; and in *Marcy, Explor. of the Red River*, pl. 8.

Red (in spirits whitish), with twenty to twenty-five pairs of black cross bands. Anal entire. Scales in twenty-one to twenty-three rows.

Var. A. The black cross bands encircling the whole body ; on the belly the rings of each pair confluent, and forming a large irregular spot ; crown black.

- a. Large specimen. Para. Presented by J. P. G. Smith, Esq.
- b. Young : not good state. Brazil. Old Collection.
- c. Large specimen. Mexico. From Hugo Finck's Collection.
- d-f. Adult and half-grown. Mexico. From Hugo Finck's Collection.
- g, h. Adult and half-grown. Mexico. From Mr. Warwick's Collection.
- i. Young. Texas. From Mr. Brandt's Collection as *Coronella coccinea*.
- k. Young. North America. Presented by Sir R. Murchison.
- l. Adult. North America.
- m. Half-grown. North America. Old Collection.

Var. B. Posterior band of one pair on the sides confluent with the anterior of the following pair, and forming a large dorsal ring ; belly with some small irregular black spots ; head black or white, with some obsolete markings.

- n-s. Half-grown and young. New Orleans. From M. Sallé's Collection.
- t. Half-grown. North America. Presented by G. Henshaw, Esq.

Var. C. Head and belly uniform black ; the bands of each pair confluent on each side of the back, so as to form a dorsal and a lateral ring, each enclosing a round yellow spot.

- u. Half-grown. Mexico. From Mr. Warwick's Collection.

*Coronella coccinea*, Schleg. Ess. p. 67, is quite unknown to us, and having only seventeen longitudinal rows of scales, it cannot be introduced into the synonymy.

## 7. LIOPHIS, Wagler.

Body and tail moderate ; head rather short, depressed ; one loreal, one anterior, two posterior oculars ; two nasals, nostril between. Scales in seventeen to twenty-one rows. Posterior maxillary teeth longest, not grooved, and separated from the anterior ones by an interval. Ventral shields generally with square black blotches. Warmer parts of America.

Liophis, *Wagl. Syst. Amphib.* p. 187 ; *Dum. & Bibr.* vii. p. 697. *Coronella*, sp., *Xenodon*, sp., *Schleg. Ess.* pp. 50, 95. *Natrix*, sp., *Coluber*, sp., *auct. prior.*



# 1. LIOPHIS BICINCTUS.

*Coluber bicinctus*, Hermann, *Observat. Zoologicæ*, p. 276. *Coronella bicincta*, Boie, *Isis*, 1827, p. 539. *Xenodon bicinctus*, Schleg. *Ess.* ii. p. 95. *Liophis bicinctus*, Dum. & Bibr. vii. p. 716.

Lower edge of orbit completely surrounded by small, scale-like shields; scales in nineteen or twenty-one rows. Brownish red, with pairs of black rings, each pair in front and behind white-edged.

- a. Large specimen. Demerara.
- b. Half-grown. South America. From the Zoological Society's Collection.

# 2. LIOPHIS COBELLA.

*Coluber cobella*, Linn. *Mus. Ad. Fried.* p. 24. *Cerastes cobella*, Laurenti, *Syst. Amph.* p. 82; Lacép. *Hist. des Serp.* ii. p. 248; Bonnat. *Encycl. Ophiol.* pl. 41. f. 2. *Coluber cenchrus* and *C. cobella*, Merrem, *Beitr. zur Naturg. der Amph.* fasc. 1. pl. 4; Tentamen, pp. 97 & 102; Boddaert, *Nov. Act. Acad. Cæs.* vii. p. 19; Donndorff, *Zool. Beitr.* p. 202. *Elaps cobella*, Schneider, *Hist. Nat.* ii. p. 296; Latr. *Rept.* iv. p. 171; Shaw, *Gen. Zool.* iii. p. 493; Daud. *Hist. Nat. Rept.* vii. p. 139. *Liophis cobella*, Wagl. *Syst. der Amphib.* p. 138. *Coronella cobella*, Schleg. *Ess.* ii. p. 62. pl. 1. f. 4, 5; Dum. & Bibr. vii. p. 698.

Head moderate; above blackish ash, with more or less white, linear, C-like spots.

- a. Adult. Brazil.
- b. Adult: bleached. Brazil. From Dr. Gardiner's Collection.
- c. Half-grown: injured. Para. Presented by R. Graham, Esq.
- d. Half-grown. Para. From Mr. Stevens's Collection.
- e. Half-grown: not good state. Para. From Mr. Stevens's Collection.
- f. Adult. Cayenne. Presented by H. Cadogan Rothery, Esq.
- g-o. Adult and half-grown. Demerara. From Mr. Snellgrove's Collection.
- p. Half-grown. Demerara. From Mr. Snellgrove's Collection.
- q-t. Half-grown and young. Demerara. From Mr. Snellgrove's Collection.
- u-v, w-y, z-α. Adult. Berbice.
- β. Half-grown. Berbice.
- γ. Young. Berbice. Presented by Lady Essex.
- δ. Many specimens. South America. From Mr. Mather's Collection.

- ε. Young. South America. From Mr. Mather's Collection.  
 η, θ. Adult: bleached. Central America.  
 ι, κ. Adult. ? West Indies. From Mr. Scrivener's Collection.  
 λ. Half-grown. ? Antilles. From Mus. Guilding.  
 μ. Adult. America.  
 ν. Adult. America. Presented by the College of Surgeons  
 ξ. Adult. America.  
 ο. Half-grown: not good state. America. From Mr. Mather's  
 Collection.  
 π. Adult. From the Berlin Museum.  
 ρ. Adult. America.

Var. A. With alternate white and blackish-ash bands or rings.

- ζ, τ. Adult. Brazil. Presented by J. S. Bowerbank, Esq.  
 υ. Adult. Para. Presented by R. Graham, Esq.  
 φ. Adult. Bahia. From the Haslar Collection.  
 ψ. Adult. Brazil. Presented by Mrs. Mauger.  
 ω. Half-grown. Brazil.  
 aa. Half-grown: bad state. Brazil. From Mr. Mather.  
 bb. Adult. Brazil.  
 cc. Half-grown. Brazil. Presented by Sir Charles Lyell.

N.B. The character of the longer posterior maxillary teeth is not very strongly marked in this species, and in the specimen ρ all the teeth are *evidently equal*.

### 3. LIOPHIS MERREMII.

*Seba*, ii. 36. 4. & 57. 2. *Coluber chiametla* and *C. perlatus*,  
*Shaw, Gen. Zool.* iii. pp. 440, 480. *Coluber merremii*, *Neuwied*,  
*Beitr. u. Abbildg. zur Naturg. Brasil*, p. 368. Lief. 8. pl. 1. f. 1.  
*Coluber doliatus* and *C. pœcilogyrus*, *Neuwied*, l. c. f. 1-3.  
*Coluber alternans*, *Lichtenstein, Catal.* p. 104. *Natrix chia-*  
*metla* et *N. forsteri*, *Spix, Serpentes Brasil.* pp. 14 & 16;  
*Wagler, Natürl. Syst. der Amphib.* p. 188. *Coluber bicolor*,  
*Reuss, Mus. Senkenb.* ii. 8. i. *Coronella merremii*, *Schleg. Ess.* i.  
 p. 135. ii. p. 58. pl. 2. f. 6-8; *Dum. & Bibr.* vii. p. 708.

Head large behind; scales black, marked in the centre by a white or yellow spot.—Young with more or less distinct rings, by degrees disappearing with age, in which the individual specimens vary infinitely.

*Adult specimens* :—

A. Scales black, marked in the centre by white or yellow spots. *Coluber merremii*, *Wied*.

a-e. Demerara. From Mr. Snellgrove's Collection.

- f. America. From the Haslar Collection.  
 g. Very large specimen. America. From the Haslar Collection.  
 h. Very large specimen. America.  
 h'. Very large specimen. America. From the Haslar Collection.  
 i. Head injured. America.  
 i'. Three feet long: female. America. From the Haslar Collection.

B. Blackish ash, irregularly white and black varied.

- k, l. Brazil.  
 m. Brazil. Presented by Lord Stuart.  
 n. Brazil.  
 o. Injured. Demerara.  
 p. Demerara. Presented by the Rev. J. S. Henslow.  
 q-t. Berbice.

*Half-grown specimens*: with more or less distinct darker cross bands; scales either black or only black-edged. *Coluber poecilogyrus*, Wied.

- u. Rio Janeiro. From the Haslar Collection.  
 v. Rio Janeiro. Presented by the Lords of the Admiralty.  
 w, x. Brazil. Presented by Lord Stuart.  
 y. Brazil. From Dr. Gardiner's Collection.  
 z. Brazil. Purchased in Paris.  
 α. Greatly injured. Brazil. From the Haslar Collection.  
 β, γ<sup>1</sup>, γ<sup>2</sup>. Brazil. From the Haslar Collection.

*Half-grown and younger specimens*: with alternate black and white cross bands. *Coluber doliatus*, Wied.

- δ, ε. Para. Presented by R. Graham, Esq.  
 η. Head injured. Brazil. Old Collection.  
 θ. Brazil. Presented by Lord Stuart.  
 ι. Brazil. Presented by Sir C. Stuart.  
 κ. Brazil. From M. Clausen's Collection.  
 λ, μ. Interior of Brazil. From Dr. Gardiner's Collection.  
 ν. Brazil.  
 ξ. Brazil. Presented by Sir C. Stuart.  
 ο. Amazon. From Mr. Bates's Collection.  
 π. Fine specimen. Tijucu. Presented by Robert Bennett, Esq.  
 π'. Pernambuco? Presented by J. G. Smith, Esq.  
 ρ. Injured. Pernambuco. Presented by J. G. Smith, Esq.  
 σ. Brazil.  
 τ, υ. Brazil. Presented by Mrs. Mauger.  
 φ. Brazil. Presented by J. C. Taunton, Esq.  
 ψ, ω. Brazil.  
 aa. Brazil. Old Collection.

*bb.* Has been dried. Brazil.

*cc.* Discoloured. Brazil. From the Haslar Collection.

#### 4. LIOPHIS REGINÆ.

*Coluber reginæ*, Linn. *Mus. Ad. Fried.* pl. 13. f. 3; *Gmelin, Syst. Nat.* iii. p. 1096; *Lacép. Quadr. Ovip. Serp.* ii. p. 187; *Shaw, Gen. Zool.* iii. p. 521; *Latr. Rept.* iv. p. 145; *Daud. Rept.* vii. p. 172. *Coluber graphicus*, (*E. W. Gray, MSS.*) *Shaw, Zool.* p. 474. *Natrix reginæ*, *Merr. Tent. Syst. Amph.* p. 115. *Liophis reginæ*, *Wagl. Syst. der Amph.* p. 188. *Coronella reginæ*, *Schleg. Ess.* ii. p. 61; *Dum. & Bibr.* vii. p. 704.

Head moderate. Above olive, generally darker varied and spotted; at the sides a series of black spots forming a band on the hinder part of the body and on the sides of the tail; a whitish streak from the back edge of the eye on each side of the occiput.

*a.* Adult. South America. From the Berlin Museum.

*b.* Adult. Demerara. From Mr. Snellgrove's Collection.

*c.* Young. Demerara. From Mr. Snellgrove's Collection.

*d.* Adult: discoloured. America. Old Collection. Original specimen of Dr. E. W. Gray's *Coluber graphicus*, described by Dr. Shaw.

*e.* Adult: bad state. America.

#### 5. LIOPHIS TÆNIURUS.

*Liophis tæniurus*, *Tschudi, Fauna Peruana, Herpet.* p. 51. t. 5.

Above more or less uniform dark olive, or with broad blackish cross bands; on each side of posterior part of body and of tail, two bluish-black longitudinal streaks, the outer ones broadest.

*a.* Adult. Guayaquil.

*b.* Adult. South America. From the Collection of the Zoological Society.

#### 6. LIOPHIS CONIROSTRIS.

Rostral shield protruding, rather pointed. Above brown, with two lighter dorsal longitudinal streaks, and indistinct, narrow, irregular black cross bands; beneath whitish, with large black blotches.

*a.* Adult. Brazil. Presented by J. S. Bowerbank, Esq.

*b.* Adult. Bahia. From the Haslar Collection.

*Description.*—Similar in general appearance to *Liophis reginæ*, but head with pointed muzzle. Rostral shield conically protruding, pointed behind, somewhat intruding between the frontals, but much more moderately than in *Simotes*; frontals moderate;



vertical much elongate, with parallel outer edges and an acute angle behind; occipitals rather small. Anterior ocular raised on surface of crown, but not reaching the vertical; two posterior oculars; loreal large, high; two nasals; eight upper labials, fourth and fifth forming the lower edge of eye; one moderate, elongate temporal shield in front, four smaller ones behind. Scales in nineteen rows, moderate, rhomboidal; anal bifid. Above brown; some scales black-edged, forming indistinct narrow cross bands; two light longitudinal streaks on each side of back, becoming more distinct on the tail; beneath whitish with sub-quadrangular black spots, each occupying a half or an entire ventral plate. Length of cleft of mouth  $\frac{7}{12}$ "; length of tail  $4\frac{3}{4}$ "; total length 21".

### 8. ERYTHROLAMPRUS, *Boie*.

Body rather elongate, cylindrical; tail moderate; belly flat; head not distinct from neck, rounded, with short muzzle. Rostral shield moderate, rounded above, just reaching the surface of head; one anterior, two posterior oculars, one loreal. Scales rather large, in fifteen rows, rhombic; anal bifid. Eye moderate, pupil round; nostril between two shields. Posterior maxillary teeth rather longer, grooved; those of the lower jaw equal in length; body encircled by black rings. South America.

*Erythrolamprus*, *Boie*, *Isis*, 1826, p. 981; *Wagl. Natürl. Syst. Amph.* p. 187; *Dum. & Bibr.* vii. p. 843. *Coronella*, sp., *Schleg. Ess.* ii. p. 53. *Coluber*, sp., *auct. prior*.

### 1. ERYTHROLAMPRUS VENUSTISSIMUS.

*Coronella venustissima*, *Schleg. Ess.* ii. p. 53.

Red, in spirits white, with pairs of black rings; red scales black at the tip.

Var. A. *Coluber æsculapii*, *Linn. Mus. Ad. Fried.* t. 11. f. 2, and *Syst. Nat.* i. p. 380; *Laur. Syn.* p. 76; *Merr. Naturg. Amph.* i. t. 5; *Cuv. Règne Anim.*; *Duv. Ann. Sc. Nat.* 1833, pl. 4. f. A. *Erythrolamprus æsculapii*, *Boie*, *Isis*, 1827, p. 538; *Wagl. Syst. Amph.* p. 187; *Dum. & Bibr.* p. 845. *Coronella venustissima*, var. de Surinam; *Schleg. l. c.* p. 55.

Body rather stouter; shields of the muzzle, fifth and sixth upper labial, pure white.

a, b. Adult. Demerara. From Mr. Snellgrove's Collection.

c-f. Half-grown. Berbice.

g. Half-grown. Berbice.

h. Adult. Para.

- i. Adult. Brazil. Presented by J. C. Taunton, Esq.
- k. Adult. Brazil. From Paris.
- l. Adult. West Indies. Presented by Miss Saul.
- m. Adult. South America. From Mr. Mather's Collection.
- n. Adult. America.
- o. Half-grown : bad state. America. Old Collection.
- p. Young : not good state. America. Old Collection.
- q-t. Half-grown. —? Presented by Sir C. Lyell.
- t'. Adult : bleached. America. Old Collection.

Var. B. *Coluber venustissimus*, *Wied, Reise*, ii. p. 75, and *Nov. Act.* p. 110, and *Abbildg.* pl. , and *Beitr.* i. p. 386. *Coluber binatus*, *Licht. Verz. der Doubl.* p. 105. *Elaps venustissimus*, *Wagl. Spix, Serp. Bras.* t. 2. f. 2. *Erythrolamprus venustissimus*, *Boie, Isis*, 1826, p. 981 ; *Wagl. l. c.* p. 187 ; *Dum. & Bibr.* p. 851. pl. 74. *Coronella venustissima*, var. du Brésil, *Schleg. l. c.*

Body rather more elongate ; most of the shields of the head margined with black.

- u. Adult. Rio Janeiro. From the Haslar Collection.
- v. Adult. Bahia. From Paris.
- w. Half-grown. Para. Presented by J. G. Smith, Esq. Instead of pairs of black rings always three, the middle one broadest.
- x. Young : dried. Para.
- y. Adult : bad state. Brazil. Presented by Sir C. Stuart.
- z. Adult. Brazil. Presented by Sir C. Stuart.
- a. Half-grown. Brazil. Presented by Sir C. Stuart.
- β. Adult : head injured. Demerara. Presented by Dr. Hancock.
- γ. Half-grown. Venezuela. From Mr. Dyson's Collection.
- δ. Adult. America.
- ε. Half-grown : injured. America.
- η. Adult. America.
- θ. Young : bad state. America. Old Collection.

Var. C. *Erythrolamprus intricatus*, *Dum. & Bibr.* p. 855. Rings not complete, irregularly alternate on the belly.

- ζ. Adult. Berbice.

Var. D. Rings complete, but not arranged in pairs, broad, alternating with white rings of the same breadth ; muzzle black in front.

- ι. Young. Mexico?

## 9. HYPsirhynchus, Günther.

Body and tail moderate, rounded, slightly compressed towards the tail ; head rather narrow, with pointed and raised muzzle ;

outline of forehead concave; one loreal, one anterior, one posterior ocular; two nasals, nostril between. Scales in nineteen rows, smooth. Anal bifid. Teeth strong, equal; posterior maxillary tooth rather stronger, not grooved. Barbadoes.

# 1. HYPsirhynchus ferox.

Brownish grey, with a dorsal series of triangular brown spots.

a. Adult. Barbadoes. From Mr. Cuming's Collection.

*Description of the specimen.*—Body moderate, rounded, slightly compressed towards the tail; tail moderate, tapering, not very distinct from trunk, triangular; head not very distinct from neck, rather narrow with elongate muzzle, pointed and raised in front; superciliaries likewise raised above the level of crown. Rostral shield five-sided with rounded corners, flat, obliquely covering the front of snout; anterior frontals small, forming together an obtuse angle behind; posterior ones much larger, slightly bent on the side; vertical slender, more than twice as long as broad, with convex outer edges and slightly rounded behind; occipitals moderate, rounded behind; superciliaries spheroid; anterior ocular just reaching the surface of crown; one posterior ocular; there is beneath the large posterior ocular a second one, so small as to be hardly visible; one oblong loreal; two nasals, forming together a narrow shield, in the centre pierced by the nostril. Eight upper labials, second much longer than third; third, fourth and fifth forming nearly the half of orbit; one elongate temporal in front, not in contact with the ocular, some smaller ones behind. Scales smooth, short, rhomboid, in nineteen rows; the anal, being bifid, exhibits moreover another transverse streak, in appearance like the other suture, but produced by the insertion of a muscle, without being a true fold of the plate. All the teeth strong; posterior maxillary tooth separated from the anterior ones by an interval, but not longer, not grooved; anterior teeth of lower jaw rather larger than the remainder. Scales shining, polished. Brownish grey (without epidermis grey) powdered with brown; a dorsal series of rather irregular, triangular, irregularly black- and white-edged spots; sides without spots; crown of head with a brown medial streak, and some other symmetrical marks; a greyish-white band, powdered with brown, from the back edge of eye to the side of throat. Rostral, lower edge of upper labials, lower labials and skin, dark brown; belly brownish yellow, minutely marbled with brown. The ferocious physiognomy of the snake, produced by the peculiar form of snout, in combination with the strong dentition, has caused the denomination. Length of cleft of mouth  $\frac{3}{4}$ " ; length of tail  $5\frac{3}{4}$ " ; total length  $29\frac{3}{4}$ ".—This is the only snake known to inhabit Barbadoes.

## Fam. III. NATRICIDÆ.

Body moderate, rather stout, generally depressed, with flat belly, sometimes rounded. Tail moderate or short, in one genus elongate, more or less distinct from trunk, tapering. Head generally depressed, broad, distinct from neck, with rounded muzzle, in *Heterodon* with pyramidal rostral. Cleft of mouth deep. Eye moderate or large, pupil round. Nostril between two nasals, in *Tomodon* only one nasal; number of oculars variable. Scales generally with strong keels, but often smooth, generally in nineteen rows. Ventral plates without lateral keels. Posterior maxillary teeth longest, in a few species equal, in some grooved. Freshwater Snakes.

*Xenodon*, *Tropidonotus*, *Heterodon*, *Schlegel*. *Ischnognathus*, *Synecranteriens*, gg., *Diacranteriens*, gg., *Dum.* & *Bibr.*

*Synopsis of the Genera.*

1. *GRAYIA*. Scales smooth, rounded, hardly imbricate; five very large temple-shields; teeth equal, smooth. West Africa.
2. *TOMODON*. Scales smooth, rhomboid, much imbricate; posterior maxillary tooth very long, grooved. South America; India.
3. *XENODON*. Head very broad, short; anterior frontals broad, rounded in front; posterior maxillary tooth longest, and separated by an interspace. South America; India.
4. *TROPIDONOTUS*. Scales keeled; muzzle rather narrow and pointed in front; anterior frontals narrow, pointed in front; one loreal; posterior maxillary tooth longest (in one species short), generally in a continuous row with the other ones. Almost every part of the globe.
5. *ISCHNOGNATHUS*. Scales keeled; loreal none; teeth equal, smooth. North America.
6. *HETERODON*. Rostral with a sharp ridge above; neck distensible. America; Madagascar.

1. *GRAYIA*, *Günther*!

Body rather stout, cylindrical, belly rounded; tail long, rounded, tapering, not distinct from trunk; head depressed, with flat crown and rather short and rounded muzzle, distinct from



neck; eye moderate, pupil round; two pairs of frontals; one loreal, one anterior, two posterior oculars; temple-shields very large. Scales smooth, short, rounded, in seventeen rows, hardly imbricate; anal bifid. Teeth of equal length, strong, smooth. West Africa.

1. GRAYIA SILUROPHAGA.

Purplish brown, with narrow, reddish-white, black variegated cross bands, widening towards the belly.

a. Adult. West Africa. From Mr. Rich's Collection.

b. Adult. Africa.

c. Adult. Africa. From Mr. Argent's Collection.

d. Half-grown. Africa.

*Description*.—Body rather stout, cylindrical; tail long, tapering, not distinct from trunk; head depressed with flat crown, and rather short and rounded muzzle, distinct from neck; eye moderate, pupil round. Rostral shield as high as broad, rounded above, just reaching the surface of head; anterior frontals small, rounded, rather pointed in front; posterior frontals small, bent on the sides, rounded behind. Vertical elongate, more than twice as long as broad, with somewhat convergent and concave outer edges and an acute angle behind; occipitals moderate, divergent and rounded behind; superciliary large, broad behind; two posterior oculars, one anterior, just reaching the surface of crown; loreal moderate; nostril somewhat raised on the surface of head, between two, not distinctly separated shields. Seven upper labials, only the fourth touching the eye; first, second, third and fifth being smallest; seventh largest, as long as the four foremost together; in one specimen it is separated into two, but this is evidently not the rule. Temple covered with five large elongate shields, two of which are in contact with oculars. Scales perfectly smooth, short, rounded, large, in seventeen rows; anal bifid.—Above greyish brown, with narrow, white and black variegated bands; each scale, coming into a band, being black with a reddish-white edge; the bands are more conspicuous on the anterior part of body, becoming gradually broader towards the belly; belly uniform yellowish, along the medial suture of subcaudals a blackish line; crown of head uniformly coloured.—Teeth numerous, strong, of equal length, smooth. Length of cleft of mouth  $\frac{7}{8}$ "; length of tail 8"; total length 26".

In the stomach of two specimens I found well-preserved specimens of *Clarias hasselquistii*, of 6" length. In the specimen, the measurements of which are stated, the stomach ceases six inches before the anus; the smaller intestines reach till two inches

before the anus, and measuring 21" in length, form twenty-three complete spirals, ending in a rectum two inches long.—This highly interesting snake, I think, is the first freshwater *Coluber* known from Africa. Allied to some *Homalopsidæ*, it differs by its form, by its scales, and by its dentition, which characters appear to be sufficient for establishing a new genus. I name it in honour of Dr. J. E. Gray, who, after gathering this rich collection during many years, has charged me with the task, as pleasant as it is difficult, of giving a systematic account of it.

## 2. TOMODON, *Dum. & Bibr.*

Posterior maxillary tooth very long and grooved; anterior teeth short, of equal length. Scales smooth, narrow, very imbricate, in seventeen or nineteen rows; anal bifid. One anterior, two posterior oculars; anterior frontals pointed in front; one nasal, in the middle of which is the small nostril; rostral hardly reaching the surface of the forehead; vertical rather elongate. Head flat, triangular, distinct from neck. South America; India.

*Tomodon*, sp., *Dum. & Bibr.* vii. p. 932.

### 1. TOMODON STRIGATUS.

Brown: on each side from the nostril to the tip of tail a narrow black stripe; on each side of belly a second one from the chin to the tip of tail.

a. Adult. India. From Mr. Warwick's Collection.

*Description.*—Body very stout and thick, with slender neck and flat belly, rather compressed towards the tail; tail thin, distinct from body, tapering, moderate. Head conical, high, broad behind, distinct from neck, with flat crown and rounded pointed muzzle; eye moderate, pupil? Rostral shield small, not much convex, five-sided, rounded above, just reaching the surface of forehead; anterior frontals small, rectangular, triangular, pointed in front; posterior frontals small, convex, bent on the sides; vertical elongate, more than twice as long as broad, with nearly parallel outer edges and a right angle behind. Occipitals moderate, hardly forked behind; superciliaries elongate, prominent above the eye; anterior ocular just reaching the surface of head, two posterior ones; loreal quadrangular (on one side united with frontal); one large nasal, pierced by the nostril; eight upper labials, fourth and fifth forming the lower edge of eye; two larger temporal shields in contact with oculars, some smaller ones behind. Scales smooth, in nineteen rows, very imbricate in not very oblique rows; those of the back rather short, with rounded

tip, those of the outer row twice as large as the other ones, entirely rounded, and much imbricate. Anal bifid. Posterior maxillary tooth very long and deeply channeled; all the other teeth equal in length.—Above and beneath brown; beneath paler, with two narrow, lateral, uninterrupted black stripes from the chin to the tip of tail; along the middle of belly are two other punctated lines, more or less conspicuous; from the nostril, through the eye, along the sides of trunk and tail, a narrow black stripe; each labial behind black-edged; an erect streak dividing the rostral in two equal parts; on the neck a medial yellowish line conspicuous. Length of cleft of mouth  $\frac{5}{8}$ " ; breadth of hinder part of head  $\frac{7}{12}$ " ; length of tail  $4\frac{1}{2}$ " ; total length 23".

## 2. TOMODON DORSATUS.

*Dum. & Bibr.* vii. p. 934.

Scales in very oblique rows; nasal single, long, occupying the place of a loreal shield. Head triangular, broad behind, pointed in front; body rather elongate. Olive, with two brown longitudinal bands along the back of trunk and tail.

*a. Adult.* Rio Janeiro. Presented by A. Fry, Esq.

*Description.*—Vertical narrow, twice as long as broad, lateral margins nearly parallel; rostral not reaching the surface of the snout; one anterior, two posterior oculars; seven upper labials, the third and fourth touching the eye. Scales in seventeen longitudinal rows, transverse rows very oblique; 135 ventral, 65 subcaudal shields. Above olive; crown of head occupied by a large brown blotch, forking behind in two broad, longitudinal, dorsal bands, reaching the end of tail; between them the vertebral row of scales olive-coloured; beneath uniform pale olive; a brown streak from the anterior ocular through the eye to the angle of mouth. Head cordate, very distinct from neck; body and tail elongate. Posterior maxillary tooth very long. Head 6''' broad, 6''' long; trunk 18"; tail 6".

## 3. XENODON, Boie.

Body stout; belly flat; head short, broad, flat; crown with broad, short shields; tail stout, tapering; eye large; two pairs of frontals; one loreal; one or two anterior, two or three posterior oculars; two nasals, nostril between; rostral moderate, reaching the surface of head. Scales generally much imbricate, and in very oblique rows, smooth in the South American, keeled in the Indian species. Posterior maxillary tooth longest, not grooved. South America; East Indies.



*Xenodon*, *Boie*, *Isis*, 1827, p. 541; *Schleg. Ess.* ii. p. 80; *Dum. & Bibr.* vii. p. 753. *Amphiesma*, sp., *Dum. & Bibr.* vii. p. 737. *Tropidonotus*, sp., *Boie*, *l. c.* p. 535; *Schleg. Ess.* ii. p. 310. *Ophis*, *Wagl. Syst. Amph.* 172. *Coluber*, sp., *Cerastes*, sp., *auct. prior.*

# 1. XENODON SEVERUS.

*Coluber severus*, *Linn. Mus. Ad. Fried.* t. 8. f. 1; *Syst. Nat.* ed. xii. t. i. p. 379. *Cerastes severus*, *Laur. Syn.* p. 84. (*Lacép. Quadr. Ovip. et Serp.* ii. p. 106, belongs to *Clotho arietans*); *Bonnat. Ophiol. Encycl.* pl. 13. f. 19. *Coluber breviceps*, *Shaw, Gen. Zool.* iii. p. 430. *Coluber versicolor*, *Merr. Tent.* p. 95. The Currucicui, *C. saurocephalus*, *Wied, Beitr.* p. 359. pl. 2. f. 6. *Xenodon saurocephalus* and *X. æneus*, *Boie, Isis*, 1827, p. 541-556. *Ophis severus*, *Wagl. Syst. Rept.* p. 172; *Fitz. Syst. Rept.* p. 28. *Xenodon severus*, *Schleg. Ess.* pl. 3. f. 1-5; *Dum. & Bibr.* vii. p. 756.

Scales in very oblique rows; ventral shields not more than 145. Head large, obtuse, body thick, tail short. In younger individuals, back with about twelve large cross bands, and belly with black spots, both disappearing with age.

## *Adult specimens :—*

A. Uniform brownish grey.

- a. Demerara. From Mr. Snellgrove's Collection.
- b. Very large. Demerara. From Mr. Snellgrove's Collection.
- c. Berbice. Presented by Lady Essex.
- d. Very bad state. Sine patria. From Mr. Mather's Collection.

B. Grey; some scales black, and forming together square black spots.

- e. Very large male. Para. From Mr. Stevens's Collection.

C. Grey, with eleven large black cross bands.

- f. Head injured. Para. Presented by R. Graham, Esq.
- g. Berbice. Presented by Lady Essex.

## *Half-grown specimens :—*

A. With whitish cross bands.

- h. Venezuela. From Mr. Dyson's Collection.
- i. Surinam.
- k. Discoloured. Sine patria. From Mr. Bartlett's Collection.



**B. Dusky variety.**

*l.* Para. Presented by R. Graham, Esq.

*Young specimens:* abdomen white with a medial broad black band, confluent with which is a series of black square blotches on each side.

*m.* South America.

*n.* Bahia. From the Haslar Collection.

*o.* Para. From Mr. Stevens's Collection.

*p.* Berbice.

*q, r.* —? From Mr. Mather's Collection.

*s.* Sine patria. Presented by the College of Surgeons.

**2. XENODON GIGAS.**

*Dum. & Bibr.* p. 761.

Anal entire; scales smooth, in nineteen rows; two anterior and two posterior oculars; brownish, with large rounded black spots. South America.

No specimen in the British Museum.

**3. XENODON COLUBRINUS.**

Scales smooth, in very oblique rows; one anterior ocular; anal entire. Head elongate; snout protruding, angular in front; nostril very large, between two nasals. Crown of head uniform, without spot or streak. Form and coloration of body as in *X. rhabdocephalus*.

*a.* Adult. Para. Presented by R. Graham, Esq.

*Description of the specimen.*—Vertical broad, short, anterior and lateral margins of equal length; rostral just raised to the surface of the snout, broader than high, obtuse-angled above; anterior frontals large, rather elongate; posterior frontals square; occipitals rather short; loreal very large, nearly square; two nasals, between them the very large rounded nostril; one anterior, two posterior oculars; eight upper labials, the fourth and fifth touching the eye. Scales in nineteen longitudinal rows, transverse rows very oblique; 151 ventral, 45 subcaudal shields. Crown of head uniform dusky brown; a brown marbled streak from the back edge of eye to the angle of mouth. Coloration of body as in *X. rhabdocephalus*. There are fourteen lozenge-shaped pale-edged blotches on the trunk, and four on the tail; belly yellowish, brown marbled. Head rather elongate, flat above; snout protruding, angular in front; eye large; form of body as in *X. rhabdocephalus*. Length of muzzle from the anterior edge

of the eye 3''' ; length of the eye  $1\frac{1}{2}$ ''' ; length of head 13''' ; breadth of head 8''' ; length of trunk 34''' ; length of tail 5''.

#### 4. XENODON RHABDOCEPHALUS.

*Coluber rhabdocephalus*, *Wied, Beitr.* p. 355 ; *Abbildg.* livr. x. pl. 3, 4. *Ophis merremii*, *Wagl. & Spix, Serp. Brasil.* pl. 12. *Ophis rhabdocephalus*, *Wagl. Syst. der Rept.* p. 172. *Coluber decorus*, *Gravenhorst*. *Xenodon ocellatus*, *Boie, Isis*, 1827, p. 541. *Xenodon rhabdocephalus*, *Schleg. Ess.* pl. 3. f. 10, 11 ; *Dum. & Bibr.* vii. p. 758.

Scales smooth, in very oblique rows ; anal bifid (sometimes entire) ; snout not protruding, rounded in front ; nostril moderate ; ventral plates 140–180 ; in the adult state head and body more elongate than in *Xenodon severus*. Back with eighteen to twenty large, lozenge-shaped, pale or black-edged spots, extending to both sides of the abdomen ; between the eyes a brown cross band.

- a. Adult. Rio Janeiro. Presented by A. Fry, Esq. (3.)
- b, c. Adult and young. Brazil.
- d. Half-grown. Rio Janeiro. Presented by A. Fry, Esq. (4.)  
Dusky variety.
- e, f. Half-grown and young. Rio Janeiro. Presented by A. Fry, Esq. (10.)
- g. Half-grown. Brazil. Presented by Sir C. Stuart.
- h. Half-grown. Brazil. Presented by Dr. Andrew Smith.
- i. Young. Rio Janeiro. Presented by A. Fry, Esq. (13.)
- k. Adult : has been dried. La Plata.
- l. Half-grown. Brazils.
- m. Half-grown. Brazils. Presented by Mrs. Philips.
- n. Half-grown. Brazils.
- o, p. Young. Brazils. From the Haslar Collection.

Var. A. Like former, but anal plate entire.

- q. Adult. Rio Janeiro. Presented by A. Fry, Esq. (2.)

Var. B. Anal plate divided, but rostral high, triangular, behind lanceolate, and reaching between both anterior frontals ; vertical elongate, twice as long as broad, as long as the anterior and posterior frontals together, longer than occipital.

- r. Half-grown. South America. Presented by W. F. Evans, Esq. Vertical very narrow, more than twice as long as broad.
- s. Half-grown. Demerara. Presented by Captain E. Sabine.
- t. Young. Brazils.

Var. C. Shields of head like in the former, but anal plate entire.

u. Half-grown. Pernambuco. Presented by J. P. G. Smith, Esq.

v. Half-grown. Brazil. From M. Clausen's Collection. Each posterior frontal divided into two.

## 5. XENODON TYPHLUS.

*Coluber typhlus*, Linn. *Syst. Nat.* i. p. 378; *Lacép. Quadr. Ovip.* ii. p. 382; *Latr. Rept.* iv. p. 77; *Daud. Rept.* iv. p. 135. *Xenodon typhlus*, *Schleg. Ess.* ii. p. 94; *Dum. & Bibr.* p. 760.

Scales in rather oblique rows, smooth; anal bifid; body rounded; head and shields moderate; above uniform bluish olive, beneath uniform yellowish.

a. Adult. Berbice. Presented by Lady Essex.

b, c. Half-grown. Sine patria. Stevens's sale.—We are in some uncertainty as to whether these specimens belong really to the above species, having the scales only in seventeen longitudinal rows, and a lateral row of spots, confluent in a streak on the tail; there is moreover a black margin above the upper labials.

## . XENODON VIRIDIS.

*Dum. & Bibr.* vii. p. 763. ? *Tropidonotus plumbicolor*, *Cantor, Proc. Zool. Soc.* 1839, p. 54.

Scales keeled, in twenty-five rows. Uniform dirty green, with a more or less obsolete darker blotch on the side of the neck. Young specimens greenish, with a broad, white, black-edged collar, pointed in front; the anterior black edge very broad, the posterior narrow; on the sides of the body some black, narrow, transverse streaks; the belly is more uniform black, the younger the individual.

a. Adult. Madras. Presented by W. Elliott, Esq.

b-e. Young. Madras. Presented by W. Elliott, Esq.

f. Adult. Bengal. Presented by Sir E. Home. The black transverse streaks still conspicuous.

g. Adult: not good state. India. Presented by W. Masters, Esq.

h. Half-grown: bad state. India. Presented by W. Masters, Esq.

i. Young. India. Presented by W. Masters, Esq.

k. Adult. Sine patria.

- l.* Young. Sine patria. Presented by the College of Surgeons.  
*m.* Young. Madagascar (doubtful). Presented by Captain Bevan.

# 7. XENODON RHODOMELAS.

*Tropidonotus rhodomelas*, Boie, *Isis*, 1827, p. 535; *Schleg. Ess.* t. 12. f. 10, 11. *Amphiesma rhodomelas*, Dum. & Bibr. vii. p. 737.

Scales keeled, in nineteen rows. Red-brown (in spirits), with a broad black dorsal band, larger and furcated on the neck; belly black-spotted on the sides.

*a.* Adult. Java. From Paris.

# 8. XENODON MACROPHthalmus.

Scales keeled, in seventeen or nineteen very oblique rows; more or less dark brown, either uniform, or with a dorsal series of reddish-brown spots; belly yellowish, anteriorly with large black quadrangular spots, posteriorly marbled with brown. Young with a yellow collar.

*a, b.* Adult. Khasya. Presented by Dr. J. Hooker.

*c.* Half-grown. Khasya. Presented by Dr. J. Hooker.

*d.* Adult: injured. Sikkim. Presented by Dr. J. Hooker.

*e.* Young. Himalaya (4000 feet). Presented by Dr. J. Hooker.

*f.* Adult. Chikiang; China. From Mr. Fortune's Collection.

*Description.*—Body as in *X. rhabdocephalus*, depressed; tail rather elongate, distinct from trunk; head rather depressed, broad, with flat crown and short rounded muzzle, distinct from neck; eye very large. Rostral shield rounded above, just reaching the surface of head; anterior frontals moderate, subquadrangular, rounded in front; posterior ones moderate, bent on the sides; rostral shield broad, longer than broad, five-sided, front edge equal to outer edge, hinder edge short, outer edges much convergent, hinder edges forming a right angle; occipitals small; superciliaries large, reaching farther backwards than vertical; anterior ocular just reaching the surface of crown, three posterior oculars; loreal sometimes very large; nostril between two shields, lateral; eight upper labials, first to fifth low, fourth and fifth coming into the orbit; four or five temporal shields, two of which are in contact with the oculars. Scales lanceolate, much imbricate, in very oblique rows, keeled, those of the outer row very large and rounded; nineteen longitudinal rows (the specimen from China exhibiting only seventeen); anal bifid.—Above olive, brown, or blackish, either uniform, or with a dorsal series of reddish-brown spots; belly yellowish, on the anterior part



with large quadrangular black spots, towards the tail marbled with brown. From the back edge of eye to the angle of mouth a dark streak; in half-grown individuals some yellow spots on the neck; in young ones a broad, yellow, black-edged collar. Posterior maxillary teeth longest, not channeled, separated from the anterior ones by an interval. Length of cleft of mouth  $\frac{9}{8}$ "; length of tail 7"; total length 39".

#### 4. TROPIDONOTUS, Kuhl.

Body moderate, rather stout (in one species slender); belly rounded; tail moderate, not distinct from trunk, tapering; head moderate, with flat crown, rather distinct from neck; snout pointed, rounded. Eyes moderate, pupil round; nostrils near the tip of the muzzle, small, between two shields; cleft of mouth deep and curved. Shields of head regular; two small anterior frontals, acute-angled in front, and forming together an isosceles; occipital plates often with a pair of yellow spots. Anal divided (in one species entire). Scales keeled, rhombic or sublanceolate. moderate, generally in nineteen rows, sometimes in more, in one species in fifteen. Teeth smooth, equal, except the posterior in the upper jaw, which is longest. In one species all the teeth equal. Almost every part of the globe.

*Tropidonotus*, Kuhl, *Isis*, 1826, p. 205; *Boie*, *Isis*, 1827, p. 518; *Wagl. Syst.* p. 179; *Schleg. Ess.* p. 296. *Tropidonotus* et *Amphiesma*, *Dum. & Bibr.* vii. p. 549, 724. *Hydrophis*, *Hydrus*, *Enhydris*, *Natrix*, *Coluber*, sp., *auct. prior.*

Instead of dividing this very natural genus into several, I separate the species in ten groups, showing at once their close relationship and their geographical distribution.

A. Group with the type of *Natrix*. Europe; North Africa.

1. *natrix*.

Var. *natrix*, *colchica*, *atra*, *bilineata*, *persa*.

2. *viperinus*.

Var. *viperina*, *chersoides*.

B. Group with the type of *Hydrus*. From South Europe through the continent of Asia, to the East Indian Islands.

3. *hydrus*.

4. *quincunciatus*.

Var. *quincunciata*, *melanozosta*, *funnebris*, *hydroides* (var. C and D), *umbrata*, *ceylonensis*.

5. *spilogaster*.

6. *annularis*.

C. Group with the type of *Stolatus*. East Indies.

- 7. vittatus.
- 8. stolatus.
- 9. subminiatus.
- 10. trianguligerus.
- 11. chrysargus.  
    Var. chrysargus, ceylonensis.
- 12. chrysargoides.
- 13. tigrinus.  
    flaviceps (of D. & B.).

D. Group with the type of *Picturatus*. Australia.

- 14. picturatus.  
    semicinctus (of D. & B.).

E. Group with the type of *Saurita*. North and Central America.

- 15. saurita.
- 16. ordinatus.  
    Var. ordinata, sirtalis, infernalis, concinna.

F. Group with the type of *Fasciatus*. N. and Central America.

- 17. fasciatus.  
    Var. fasciata, sipedon, pogonias, niger, erythrogaster.
- 18. cyclopion.
- 19. tarsispilotus.

G. Group with the type of *Leberis*. Southern parts of North America; Central America; Northern parts of South America.

- 20. leberis.
- 21. rigida.
- 22. grahamii.
- 23. medusa.

H. Group with the type of *Cerasogaster*. India.

- 24. cerasogaster.

I. Group with the type of *Auriculatus*. Philippine Islands.

- 25. auriculatus.

K. Group with the type of *Vibakari*. Japan.

- 26. vibakari.

*a. Species allied to T. natrix.*

1. TROPIDONOTUS NATRIX.

*Natrix torquata*, Gesner, *De Serpent. Nat.* p. 110; Merr. *Tent.* p. 124; Ray, *Synops. Animal.* p. 334; Seba, ii. 4. *Coluber natrix*, Linn. *Mus. Ad. Fried.* t. 21. f. 2, and *Syst. Nat.* i. p. 380; Boddaert, *Nov. Act. Cæs. Leop.* 1783, p. 24; Lacép. *Quadr. Ovip. Serp.* ii. p. 147; Shaw, *Zool.* iii. p. 446; Daud. *Rept.* vii. p. 34; Latr. *Rept.* iv. p. 38; Merr. *Tent.* p. 124; Lenz, *Schlangenkunde*, p. 485; Sturm, *Deutsche Fauna*, p. ; Cuv. *Règne Anim.* *Tropidonotus natrix*, Boie, *Isis*, 1827, p. 534; Wagler, *Syst. Amph.* p. 179; Schleg. *Ess.* ii. p. 302; Bonap. *Faun. Ital.* pl. ; Eichw. *Faun. Caspio-Caucas.* t. 22. f. 1, 2; Dum. & Bibr. p. 535.

Scales in nineteen rows; upper labials seven, the third and fourth touching the eye; one anterior, three posterior oculars; anterior frontals not pointed, rather obtuse in front. Generally olive, with a series of narrow black spots on each side; generally on each side of the neck a broad yellow, behind black-edged collar-like spot; belly with large oblong black spots.

The structure and number of the shields and scales are the most constant characters in the species.

- a.* Adult. England. Presented by H. Harrison, Esq.
- b.* Adult and foetus: bad state. England.
- c.* Young. England.
- d.* Young. England. Presented by the Zoological Society.
- e, f.* Adult. Devonshire. Mus. Leach.
- g, h.* Half-grown and young. Devonshire. Mus. Leach.
- i.* Foetus and eggs. Cobham. Presented by General Buckley.
- k.* Half-grown: not good state. South Europe. Presented by P. B. Webb, Esq.
- l.* Adult. Sine patria. Stevens's sale.
- m.* Adult. Sine patria.
- n.* Adult. Sine patria. Purchased of Mr. Gardiner.
- o, p.* Half-grown. Sine patria. From Mr. Warwick's Collection.
- q.* Half-grown. Sine patria. Presented by Mr. Mauge.
- r.* Young. Sine patria. Purchased of Mr. Leadbeater.
- s.* Two-headed monstrosity. — ?

Var. *A. colchica*, Nordmann in *Demidoff's Voyage dans la Russie Mérid.*, *Rept.* t. 12. f. 1.

No specimen in the British Museum.

Var. *B.* Collar black.

- t.* Adult. Bononia. Presented by J. J. Bianconi.
- u, v.* Half-grown. Bononia. Presented by J. J. Bianconi.

- w. Adult. South Europe. Presented by R. B. Webb, Esq.  
 x. Adult: head injured. Europe. Presented by Lord Orkney.  
 y. Adult. Sine patria. Presented by the College of Surgeons.

Var. C. atra, *Nordm. l. c. t. 11*. Uniform black above, with an obsolete lighter collar; along each side of belly a series of white spots.

- z. Adult. Epidaurus. Presented by the Rev. W. Hennah.

Var. D. bilineata, *Bibron*. Back with two yellowish longitudinal lines.

*Coluber murorum, Vest.* *Tropidonotus natrix*, var., *Schleg. Ess. ii. p. 307.* *Tropidonotus chersoides*, pt., *Dum. & Bibr. p. 564.* Lines seventeen to nineteen.

a. With a collar.

- a. Large specimen. Shores of Mediterranean. Presented by J. Miller, Esq.  
 β. Adult. Xanthus. Presented by Sir C. Fellows.  
 γ. Half-grown. Epidaurus. Presented by the Rev. W. Hennah.  
 δ. Adult. Bononia. Presented by J. J. Bianconi.  
 ε. Half-grown. Bononia. Presented by J. J. Bianconi.  
 η, ζ. Young. Bononia. Presented by J. J. Bianconi.  
 θ. Adult. Europe.  
 ι. Adult. —? From Mr. Argent's Collection.

b. Without a collar.

*Tropidonotus persa, Eichw. l. c. t. 21.*

- κ. Adult. Asia. From the Haslar Collection.

b. *Species allied to T. viperinus.*

2. TROPIDONOTUS VIPERINUS.

*Schlegel, Essai, ii. p. 325. pl. 12, f. 14, 15.*

Scales in twenty-one rows; upper labials seven, the third and fourth touching the eye; one anterior, two posterior oculars; anterior frontals sharply pointed in front, narrow. Olive, with a lateral series of yellowish, dark-edged, round spots, or with two yellowish longitudinal lines on the back, dark spots between.

Var. A. viperina.

*Coronella tessellata, Laurenti, Synops. p. 89; Latr. Rept. iv. p. 49; Daud. Rept. vii. p. 125.* *Natrix viperina, Merr. Tent. 126; Cuv. Règne Anim. Natrix tessellata, Merr. Tent. p. ; Bonap. Faun. Ital. pl. . Tropidonotus viperinus, Dum. & Bibr. p. 560.*



Generally a vertebral row of more or less distinct spots; a lateral row of white, dark-edged spots; no longitudinal line.

- a. Adult and young. Tunis. From Mr. Fraser's Collection.
- b. Half-grown. Algiers. From Paris.
- c. Nearly half-grown. Tangiers. From Mr. Fraser's Collection.

Var. B. *chersoides*.

*Natrix chersoides et ocellata*, *Wagl. & Spix, Serp. Bras.* t. 10, 11; *Syst. Amph.* p. 179. *Tropidonotus viperinus*, var., *Schleg. Ess.* ii. p. 326. *Tropidonotus chersoides*, part., *Dum. & Bibr.* p. 562.

Back with two yellowish longitudinal lines.

- d. Adult. Tangiers. From Mr. Fraser's Collection.
- e. Half-grown. Tunis. From Mr. Fraser's Collection.

### 3. TROPIDONOTUS HYDRUS.

*Coluber hydrus*, *Pall. Zoogr. Rosso-Asiat.* iii. p. 36; *Rathke in Mém. de l'Acad. St. Pétersb.* iii. pl. 1. f. 1-7. *Hydrus caspius*, *Schneid. Amph.* *Tropidonotus tantalus et T. gracilis*, *Eichwald, Zool.* iii. p. 173. *Coluber reticulatus*, *Ménétriés.* *Tropidonotus hydrus*, *Nordmann, Voy. dans la Russie Mérid. par A. Demidoff, Rept.* pl. 10; *Eichwald, Fauna Caspio-Caucas.* t. 24. f. 1-3; *Dum. & Bibr.* vii. p. 564.

Scales in nineteen rows; anal bifid; eight upper labials, only the fourth reaching the orbit; three (two) anterior, four posterior oculars. Blackish ash above, sometimes with more or less regular black spots; belly whitish, towards the middle black-dotted and black.

- a, b. Adult and half-grown. Europe. Presented by Arthur Russell, Esq.
- c. Adult. Italy. Presented by J. J. Bianconi as *T. gabinus*.
- d. Adult. Odessa.
- e. Adult. Euphrates Expedition. Two anterior oculars.
- f. Adult. India? From Mr. Warwick's Collection.
- g. Young. Euphrates Expedition. Two anterior oculars.

### 4. TROPIDONOTUS QUINCUNCIATUS.

*Hydrus piscator et palustris*, *Schneider, Hist. Nat. Amphib.* p. 247 & 249. *Shaw, Gen. Zool.* p. 568 & 569. *Russell, Ind. Serp.* ii. t. 14, 15<sup>a</sup>, 20, 33. *Enhydris piscator et E. palustris*, *Latr. Rept.* iv. p. 203. *Coluber anastomosatus* and *C. braminus*, *Daud.*

*Rept.* vii. p. 140 & 176. *Natrix piscator* and *N. palustris*, *Merr. Tent.* p. 122, 124. *Coluber rectangulus*, *Gray, Ind. Zool.* *Coluber hippus*, *Reuss, Mus. Senckenb.* pl. 9. f. 2. *Tropidonotus quincunciatus*, *Schleg. Ess.* pl. 12. f. 4, 5; *Dum. & Bibr.* vii. p. 592.

Scales in nineteen or twenty-one rows; two anterior nasals; one anterior, three posterior oculars; nine upper labials, the fourth and fifth touching the eye. Two narrow, black, oblique streaks extending from the eye across the hinder upper labial shields. Above olive-grey, with three, five, or seven series of square or roundish blackish-ash blotches; beneath yellowish.

The number and disposition of the shields of the head, the two black streaks—invisible only in one variety—appear to be the most permanent characters of the species, the distribution of the colours being liable to great variation.

- a. Fine specimen. India.
- b. Adult. India.
- c. Adult: not good state. India. Old Collection as *Tr. umbratus*.
- d. Adult. India. Presented by W. C. Masters, Esq.
- e. Adult. India.
- f. Half-grown: bad state. India. Presented by W. C. Masters, Esq.
- g. Half-grown: head injured. India. Presented by Captain Stafford.
- h. Adult: not good state. Madras. Presented by J. C. Jerdon, Esq.
- i. Adult: bad state. Madras. Presented by J. C. Jerdon, Esq.
- k. Adult. Sikkim. Presented by Dr. J. Hooker.
- l, m. Adult. Singapore. Presented by General Hardwicke.
- n, o. Half-grown. Benares. Presented by Dr. Sayer.
- p. Adult: skin. India. Presented by the Zoological Society.
- q. Adult. India. From Mr. Argent's Collection.
- r. Adult. India. Presented by J. Nimmo, Esq.
- s. Adult: bad state. India.
- t-y. Half-grown. India. From Mr. Argent's Collection.
- z. Young. India. From Mr. Lund's Collection.
- a. Young. India. Presented by the Zoological Society.
- β. Young. India.
- γ. Young: head injured. India.
- δ. Young. India. Presented by W. Masters, Esq.

Var. A. *Coluber melanozostus*, *Gravenhorst, Vergl. Uebers.* p. 402; *Boie, Isis*, 1827, p. 535. *Tropidonotus quincunciatus*, var., *Schleg. Ess.* p. 308. Var. C. *Dum. & Bibr.* vii. p. 549.

The dark blotches confluent, and forming five black longitudinal bands.

ε. Adult. Borneo. From Mr. Stevens's Collection.

η. Half-grown. Java. From Mr. Argent's Collection.

Var. B. *Coluber funebris*, *Oppel*. *Coluber sinuatus*, *Reinw.* *Tropidonotus quincunciatus*, var., *Schleg. l. c.* Var. A. *Dum.* & *Bibr. l. c.*

The dark blotches confluent, and forming large transverse bands.

ζ. Adult. Ceylon. From Mr. Cuming's Collection.

θ. Half-grown. Ceylon. From Mr. Cuming's Collection.

ι. Adult. Sine patria.

κ. Adult. Ceylon. Presented by Capt. Gascoigne. This specimen presents eleven upper labials, the fifth and sixth touching the eye.

Var. C. No large distinct blotches; olive-grey, varied with black and white.

λ. Large specimen. India. Purchased.

μ. Half-grown. India. Presented by Captain Stafford.—Ventral plates black-edged.

ν. Half-grown. Bengal. Presented by Dr. Burk.

ξ. Adult: not good state. Madras. Presented by J. C. Jerdon, Esq.

ο. Nearly half-grown. Madras. Presented by J. E. J. Boileau, Esq.

π. Half-grown. China. Presented by J. Reeves, Esq.

ρ, s. Adult. Canton. From the Haslar Collection.

τ. Adult. Sine patria. From the Haslar Collection.

υ. Adult. Sine patria. Presented by J. Nimmo, Esq.

φ. Nearly adult. Sine patria. From the Haslar Collection.

ω. Five specimens in fluid. China.

aa. Young: not good state. China. Presented by J. Reeves, Esq.

bb. Half-grown: very bad state. Sine patria.

Var. D. Nearly uniform greyish ash, only a few scales black or white-edged.

cc. Half-grown. Madras. Presented by Walter Elliott, Esq.

dd. Half-grown male. Madras. Presented by Walter Elliott, Esq.

ee. Half-grown. Java. From Paris.—Anal plate entire.

Var. E. *Coluber umbratus*, *Daudin*, *Rept.* t. vii. p. 144; *Russ. Ind. Serp.* ii. t. 5 and 3. f. 1 (young). *Coluber brunneus* and *C. atratus*, *Hermann*, *Obs. Zool.* i. p. 283. *Natrix umbrata* and *N. lugubris*, *Merr. Tent.* p. 119, 133. *Tropidonotus umbratus*, *Schleg. Ess.* ii. p. 309.

Head and body uniform blackish ash; head without black streaks; only a few scales black- or white-edged; belly pale.

*ff.* Adult: head injured. Nepal. Presented by B. H. Hodgson, Esq.

*gg.* Adult: very bad state. Nepal. Presented by B. H. Hodgson, Esq.

*hh.* Half-grown: bad state. Nepal. Presented by B. H. Hodgson, Esq.

*ii-nn.* Adult and half-grown. Nepal. Presented by B. H. Hodgson, Esq.

*oo.* Adult. India.

*pp.* Adult. Sandwich Islands. From the Haslar Collection.—Entirely uniform blackish ash.

Var. F. Like var. D., but scales very strongly keeled.

*qq, rr.* Adult. Ceylon. Presented by A. Paul, Esq.

*ss.* Half-grown. Ceylon. From Mr. Cuming's Collection.

*tt.* Half-grown. Ceylon. Presented by Sir J. Banks.

*uu.* Half-grown: bad state. Ceylon. Presented by R. Templeton, Esq.

*vv, ww.* Half-grown and young. Ceylon. From Mr. Cuming's Collection.

*xx.* Half-grown. Ceylon. From Mr. Stevens's Collection.

*yy.* Young. Ceylon. From Mr. Cuming's Collection.

## 5. TROPIDONOTUS SPILOGASTER.

*Tropidonotus spilogaster*, *Boie, Isis*, 1828, p. 559; *Dum. & Bibr.* vii. p. 598. *Tropidonotus quincunciatus*, var., *Schleg. Ess.* ii. p. 309; *Eydoux & Gervais, Voy. de la Favorite*, v. pl. 28.

Scales in nineteen rows; upper labials nine, the fourth, fifth and sixth touching the orbit; anterior oculars two, posterior three. Above brown, with three series of black spots, two lighter longitudinal bands between; ventral plates with small, round, black dots, in the middle and on the sides likewise. No streaks from the eye across the hinder upper labials, but an obsolete dark temple-streak; a roundish white spot behind the occiput.

*a, b.* Adult. Philippines. From Mr. Cuming's Collection.

*c.* Half-grown. Philippines. From Mr. Cuming's Collection.



6. *TROPIDONOTUS ANNULARIS*.

*Hallowell, Proc. Acad. Nat. Sc. Philad.* 1856, p. 151.

Scales in nineteen rows; anal bifid; occipital shields large and elongate; eight upper labials, only the fourth touching the eye; one anterior, three posterior oculars. Back uniform lead-coloured, sides paler, belly white; deep black, well-defined bands across the abdomen and extending on the sides, each occupying one to two ventral or subcaudal shields.

*a.* Adult. Near Ningpo, China. From Mr. Cuming's Collection.

*b.* Half-grown. Chikiang, China. From Mr. Fortune's Collection.

We add to the above diagnosis: Head narrow; trunk rather elongate; tail not distinct, moderate, tapering; rostral broad; anterior frontals triangular, pointed in front, posterior ones rather narrow; vertical rather elongate; occipitals long, each pointed behind, and forming together an obtuse angle; loreal shield nearly square; six temporals; only the nine medial rows of scales provided with moderate keels. The black ventral zones on the anterior part of belly entire and uninterrupted, on the posterior sometimes broken in the medial line, and the half of one side alternate with that of the other. Length of head  $\frac{3}{4}$ "; length of tail  $4\frac{1}{2}$ "; total length 2'.

*c. Species allied to T. vittatus.*

7. *TROPIDONOTUS VITTATUS*.

*Scheuchzer, Phys. Sacr.* t. 661. f. 8; *Seba*, i. 35. 4, ii. 44. 5, and 60. f. 2, 3. *Coluber vittatus*, *Linn. Mus. Ad. Fried.* t. 18. f. 2; *Boddaert, in Nov. Act. Acad. Curios.* vii. p. 21; *Shaw, Gen. Zool.* p. 533; *Daubenton, Dict. Encycl. Erpét.*; *Lacép. Quadr. Ovip. Serp.* ii. p. 300; *Latr. Rept.* iv. p. 175; *Daud. Rept.* vii. p. 330; *Russell, Ind. Serp.* ii. t. 35. *Natrix vittata*, *Merr. Tent.* p. 119. *Tropidonotus vittatus*, *Boie, Isis*, 1827, p. 535; *Schleg. Ess.* ii. p. 318; *Dum. & Bibr.* vii. p. 600.

Scales in nineteen rows; upper labials nine. Above whitish, with three or five black longitudinal stripes, the middle one being much narrower than those on the sides; belly white, each plate deeply margined with black.

*a.* Adult. China. Old Collection.

*b, c.* Adult. Hong Kong. Presented by J. C. Bowring, Esq.

*d-h.* Adult and young. Java. Presented by J. C. Bowring, Esq.

*i.* Adult: tail injured. Java. From Mr. Brandt's Collection.

*k-m.* Adult. India. Old Collection.

- n, o.* Adult : rather discoloured. India. Old Collection.  
*p.* Adult. Sine patria.  
*q.* Adult : tail injured. Sine patria. Presented by the College of Surgeons.  
*r.* Half-grown : very bad state. Sine patria.

### 8. TROPIDONOTUS STOLATUS.

*Coluber stolatus*, *Linn. Mus. Ad. Fried.* t. 22. f. 1, and *Syst. Nat.* ed. xii. t. i. p. 379 ; *Laurenti, Syn. Rept.* p. 95 ; *Shaw, Gen. Zool.* iii. p. 542. *Coronella cervina*, *Laurenti, l. c.* p. 88. *Coluber cervinus*, *Gm. Syst. Nat.* i. p. 1114 ; *Lacép. Hist. Nat. des Serp.* ii. p. 107 ; *Latr. Rept.* iv. p. 80 ; *Daud. Rept.* vii. p. 161 ; *Russell, Ind. Serp.* i. t. 10, ii. 19, and ii. t. 15. B. (young). *Natrix stolata*, *Merr. Tent.* p. 123. *Tropidonotus stolatus*, *Boie, Isis*, 1827, p. 535 ; *Schleg. Ess.* ii. p. 317. *Amphiesma stolatum*, *Dum. & Bibr.* vii. p. 727.

Scales in nineteen rows ; upper labials eight (seven), the third, fourth and fifth touching the eye. Above olive-brown, with two yellow or light bands, and a series of black cross bars between ; black streak under the eye along the meeting margins of the fourth and fifth upper labial shield ; abdomen white, each plate on the sides black-spotted.

*a, b.* Adult and half-grown. Ceylon. Presented by Sir J. MacGrigor.

*c.* Adult. Ceylon. Presented by Sir J. Banks.

*d.* Adult. Ceylon. From Mr. Cuming's Collection.

*e.* Adult. Ceylon. Presented by A. Paul, Esq.

*f.* Adult : bad state. Ceylon. Presented by R. Templeton, Esq.

*g.* Half-grown. Ceylon. Presented by Sir J. Banks.

*h.* Half-grown. Ceylon. Presented by Captain Gascoigne.

*i, k.* Adult. Madras. Presented by J. E. J. Boileau, Esq.

*l-n.* Adult. Madras. Presented by Walter Elliott, Esq.

*o.* Adult. Madras. Presented by J. E. J. Boileau, Esq.

*p-r.* Half-grown. Madras. Presented by Captain Bevan.

*s.* Half-grown. Madras. Presented by J. E. J. Boileau, Esq.

*t.* Not in good state. Nepal. Presented by B. H. Hodgson, Esq.

*u, v.* Adult and young. Benares. Presented by Dr. Sayer.

*w.* Young. Benares. Presented by Dr. Sayer.

*x.* Large specimen. Khasya. Presented by Dr. J. Hooker.

*y.* Adult : tail injured. Hong Kong. Presented by J. C. Bowring, Esq.

*z.* Young. Hong Kong. Presented by J. C. Bowring, Esq.

*a.* Adult : not good state. China. Presented by J. Reeves, Esq.

- β. Half-grown: bad state. China. Presented by J. C. Reeves, Esq.  
 γ. Half-grown. China. Presented by Mr. Bennett.  
 δ. Young. China.  
 ε. Young. Borneo. Presented by Captain Sir Edward Belcher.  
 η, θ. Adult. India.  
 ζ. Adult: bad state. India.  
 ι. Adult. India. Presented by W. Masters, Esq.  
 κ, λ. Adult and half-grown. India. Presented by W. Masters, Esq.  
 μ. Half-grown. India.  
 ν. Adult. — ?  
 ξ. Adult. India.  
 ο. Adult. India.  
 π. Adult. India. From the Haslar Collection.  
 ρ. Adult. — ? From Mr. Argent's Collection.  
 σ. Half-grown. India.  
 τ. Half-grown. India. Presented by Sir J. MacGrigor.  
 υ. Half-grown. India.

9. *TROPIDONOTUS SUBMINIATUS*.

*Tropidonotus subminiatus*, Reinwardt; Boie, *Isis*, 1827, p. 535; Schleg. *Ess.* ii. p. 313. *Rhabdophis subminiatus*, Fitz. *Syst. Rept.* p. 27. *Amphiesma subminiatus*, Dum. & Bibr. vii. p. 734. *Tropidonotus junceus*, Cantor, *Catal. of Malayan Rept.* p. 93.

Scales in nineteen rows; upper labials eight (seven), the third, fourth and fifth touching the eye. Above brown or greenish, with small, irregular, black spots; neck with a large black blotch, behind with a white or yellow collar, both disappearing in some adult specimens; a black streak under the eye along the meeting margins of the fifth and sixth upper labials; sometimes with two whitish longitudinal lines, like *T. stolatus*; abdomen yellowish white, with two punctated lines on the side.

- a, b. Adult. Java. From Mr. Argent's Collection.  
 c. Adult: tail injured. Java. From the Leyden Museum.  
 d. Adult: tail injured. Java. From Mr. Brandt's Collection.  
 e-h. Adult: not good state. Java. From Mr. Argent's Collection.  
 i-l. Adult and half-grown. Hong Kong. Presented by J. C. Bowring, Esq.  
 m. Young. Chikiang, China. From Mr. Fortune's Collection.  
 n. Adult. Tenasserim Coast. Presented by Dr. Packmann.  
 o. Adult: not good state. Sikkim. Presented by Dr. J. Hooker.

- p.* Adult: without viscera. India. Presented by Prof. Oldham as *T. junceus*.  
*q.* Young. India. Presented by General Hardwicke.  
*r.* Young. India.

#### 10. TROPIDONOTUS TRIANGULIGERUS.

*Tropidonotus trianguligerus*, *Reinw.*; *Boie, Isis*, 1827, p. 535; *Schleg. Ess. pl. 12. f. 1-3*; *Dum. & Bibr. vii. p. 590*.

Scales in nineteen rows; upper labials nine, the fourth, fifth and sixth touching the orbit; anterior ocular one, posterior three. Above brown; on the side of the trunk a series of large red (in spirits olive-brown) triangular blotches, separated one from the other by black spots, and becoming indistinct towards the middle of the body; ventral plates either uniform yellowish or dark-edged.

Cantor (*Catal. of Malayan Rept. p. 89*) is wrong in identifying this species with *Tr. umbratus*; the specimens in the British Museum, one of which is named by Herr Schlegel from the Leyden Museum, prove the difference in number and disposition of the upper labials.

- a.* Adult. Java. From the Leyden Museum.  
*b.* Adult: bad state. Borneo. From Mr. Low's Collection.  
*c.* Half-grown. Borneo. From Mr. Wallace's Collection.  
*d.* Half-grown: not good state. Singapore. Presented by General Hardwicke.  
*e.* Half-grown: tail injured. India. Presented by General Hardwicke.  
*f.* Adult: bad state. Sine patria. From the Haslar Collection.

#### 11. TROPIDONOTUS CHRYSARGUS.

*Tropidonotus chrysargus*, *Boie, Isis*, 1827, p. 534; *Schleg. Ess. t. 12. f. 6, 7*. *Steriophis chrysargus*, *Fitz. Syst. Rept. 27*. *Amphiesma chrysargum*, *Dum. & Bibr. vii. p. 739*.

Scales in nineteen or twenty-one rows; upper labials nine, the fourth, fifth and sixth touching the eye; anterior oculars two, posterior three. Above brown; on each side of the trunk a series of black blotches, in the centre of which a yellow (in spirits white) spot; belly yellow, on the sides marbled with purple.

- a.* Adult. Java. From the Leyden Museum.  
*b.* Adult: injured. Java. From the Leyden Museum.  
*c.* Nearly half-grown: not good state. Batavia.



- d. Young. Borneo. Presented by Captain Sir E. Belcher.—On the neck two yellow lines, confluent behind, disappearing with age.
- e. Young: very bad state. Philippines. From Mr. Cuming's Collection.
- f. Adult: bad state. Nepal. Presented by B. H. Hodgson, Esq.
- g. Adult: bad state. India. Presented by Professor Oldham as *Tropidonotus subcarinatus*.

Var. *ceylonensis*: the fourth and fifth upper labial shields are united so as to form only eight upper labials, the fourth and fifth of which touch the eye. Coloration vivid, as described; with a broad, black, temporal streak.

- h. Half-grown. Ceylon. From Mr. Cuming's Collection.

## 12. TROPIDONOTUS CHRYSARGOIDES.

*Schlegel, Mus. Leyden.*

Scales in twenty-one rows; all rows keeled; anal bifid; upper labials nine, the fourth, fifth and sixth touching the eye; one anterior, three posterior oculars; anterior frontals larger than generally, obtuse in front; occipitals narrow. Above uniform black, beneath slate-blue, each plate clouded on the edge.

The characters here referred to are based upon a single specimen in the collection of the British Museum.

- a. Adult. Sine patria. From the Leyden Museum.

## 13. TROPIDONOTUS TIGRINUS.

*Tropidonotus tigrinus*, Boie, *Isis*, 1826, p. 206; *Siebold, Faun. Japon. Ophid.* t. 4; *Schleg. Ess.* ii. p. 315. *Amphiesma tigrinum*, Dum. & Bibr. vii. p. 732.

Scales in nineteen rows; upper labials seven, the third and fourth touching the eye; anterior frontals rather large; no longitudinal band. Above olive or brown, with three or four longitudinal series of large, black, regular blotches; neck with a white collar, black-edged behind; abdomen yellowish, with two punctated lines, confluent towards the middle of the length, so as to cover the whole belly.

- a-c. Adult. Japan. From the Leyden Museum.
- d. Adult. Ningpo, China. From Mr. Cuming's Collection.

d. *Species allied to T. picturatus.*

## 14. TROPIDONOTUS PICTURATUS.

*Tropidonotus picturatus*, *Schleg. Ess.* t. 12. f. 8, 9; *Dum. &*

*Bibr.* vii. p. 602. *Tropidonotus australis*, Gray, *Zool. Misc.* p. 54.

Scales in fifteen rows; anal bifid; eight upper labials, the fourth and fifth touching the eye; one anterior, three posterior oculars. (In spirits) above uniform dark brown; belly olive, clouded, especially on the sides.

*a-c.* Adult. Port Essington.

*d.* Adult. Port Essington. From Mr. Gilbert's Collection.

*e.* Adult. N.W. Australia. Presented by Sir J. Richardson.

*f.* Adult: not good state. North-west Australia.

*g.* Half-grown. North Australian Expedition. Presented by Dr. J. R. Elsey.

*h.* Adult. Australia. Presented by Sir J. Richardson.

*i.* Half-grown. Australia. Presented by Sir J. Richardson.

*k.* Adult: head injured. Australia. From the Haslar Collection.

*e. Species allied to T. saurita.*

# 15. TROPIDONOTUS SAURITA.

Ribbon Snake, *Catesby, Nat. Hist. of Carol.* ii. p. 50. t. 1. *Coluber saurita*, *Linn. Syst. Nat.* ed. xii. t. i. p. 385; *Shaw, Gen. Zool.* iii. p. 532; *Fitz. Neue Class. Rept.* p. 59; *Storer, Rept. Massach.* p. 229; *Thompson, Hist. of Verm.* p. 115; *Daud. Rept.* vii. pl. 81; *Bonnat. Ophiol.* pl. 73; *Lacép. Quadr. Ovip. Serp.* p. 308; *Latr. Rept.* iv. p. 178. *Natrix saurita*, *Merr. Tent.* p. 122. *Coluber proximus*, *Say, Rocky Mount.* i. p. 187. *Tropidonotus proximus*, *Boie, Isis*, 1827, p. 535. *Coluber saurita* and *C. proximus*, *Harlan, Journ. Acad. Nat. Sc. Philad.* v. p. 229; *Med. and Phys. Researches*, pp. 115 & 116. *Tropidonotus saurita*, *Schleg. Ess.* ii. p. 323; *Dum. & Bibr.* vii. p. 585. *Leptophis sauritus*, *Holbr. N. Amer. Herpet.* iii. pl. 4; *Dekay, New York Fauna*, pl. 2. f. 1. *Eutainia saurita*, *E. faireyi* and *E. proxima*, *Baird & Girard, Catal.* p. 24.

Body and tail very slender, elongate. Scales in nineteen rows; anal bifid; upper labials eight; anterior ocular one, posterior three. Above brown, with three yellow longitudinal bands; abdomen greenish white.

*a, b.* Adult and young. Belize. Presented by J. Smith, Esq.

*c.* Adult. Honduras.

*d.* Seven specimens. Mexico. From Mr. Warwick's Collection.

*e-i.* Half-grown. Mexico.

*k.* Many specimens. New Orleans. From M. Sallé's Collection.

*l.* Adult. Texas.

*m.* Adult: tail injured. Texas. From Mr. Brandt's Collection.

*n.* Adult. North America.

- o.* Half-grown. North America. Presented by Dr. Jacob Green.
- p, q.* Young : bad state. North America. Presented by Dr. Jacob Green.
- r.* Young : bad state. North America. Presented by Edward Doubleday, Esq.
- s.* Adult. North America. From the Haslar Collection.
- t.* Half-grown : not good state. N. America. Old Collection.
- u.* Half-grown : very bad state. Mexico.

# 16. TROPIDONOTUS ORDINATUS.

Green-spotted Snake, *Catesby, Nat. Hist. of Carol.* ii. pl. 53. *Tropidonotus bipunctatus, Schleg. Ess.* ii. p. 320; *Dum. & Bibr.* vii. p. 582.

Body and tail moderately stout ; scales in nineteen or twenty-one rows ; anal entire ; upper labials eight, anterior ocular one, posterior three. Above on a darker ground three light longitudinal lines, intervals uniform or black spotted ; beneath without spots.

Var. *A. Coluber ordinatus, Linn. Syst. Nat.* p. 379 ; *Merr. Tent.* p. 93 ; *Harl. Med. and Phys. Res.* p. 113, and *Journ. Acad. Nat. Sc. Philad.* v. p. 349 ; *Storer, Reports,* p. 223. *L'Ibibe, Daubent. Encycl. Méth. ; Lacép. Quadr. Ovip. Serp.* ii. p. 311 ; *Daud. Rept.* vii. p. 181. *Coluber eques, Reuss, Mus. Senckenb.* t. 8. f. 2. *Tropidonotus ordinatus, Boie, Isis,* 1827, p. 535 ; *Holbr. N. Amer. Herpet.* iv. pl. 12. *Tropidonotus tænia, Dekay, New York Faun. Rept.* pl. 13. f. 27. *Eutainia leptocephala, E. ordinata, E. ordinoides, E. vagrans, and E. marciana, Baird & Girard, Catal.* p. 12. *Eutainia marciana, Marcy, Explor. of the Red River,* pl. 3.

Ground colour olive, greenish or brown ; stripes not very conspicuous ; intervals black spotted.

Subvar. 1. Two yellow spots on the occipital shields.

- a.* Adult. North America.
- b.* Adult. North America.
- c.* Adult. North America.
- d.* Adult : injured. North America. Presented by Edward Doubleday, Esq.
- e.* Adult. North America. Presented by Edward Doubleday, Esq.
- f.* Adult. North America.
- g.* Adult. North America.
- h.* Half-grown. Texas. From Mr. Cuming's Collection.
- i, k.* Half-grown. North America.
- l.* Young. North America. From Mr. Cuming's Collection.

- m.* Adult. North America.  
*n.* Adult. North America. From the Haslar Collection.  
*o.* Adult. North America. From the Haslar Collection.  
*p.* Adult. North America. From the Haslar Collection.  
*q.* Adult. North America.

Subvar. 2. Without spots on the occiput.

- r, s.* Adult and half-grown. North America. Presented by Dr. Jacob Green.  
*t.* Young. North America.  
*u.* Young. North America. Presented by Edward Doubleday, Esq.  
*v, w.* Adult and half-grown. North America.  
*x.* Adult. ———? From Paris.

Var. B. *Coluber sirtalis*, Linn. *Syst. Nat.* p. 383; Shaw, *Gen. Zool.* iii. p. 535; Merr. *Tent.* p. 132; Harl. *Journ. Acad. Nat. Sc. Philad.* 1827, p. 352; Storer, *Reports*, p. 221. Le Sirtale, Daubent. *Encycl. Méth.*; Lacép. *l. c.* p. 323; Latr. *Rept.* iv. p. 69; Daud. *l. c.* p. 146. *Tropidonotus sirtalis*, Holbr. *N. Amer. Herpet.* iv. pl. 11. *Eutainia sirtalis* and *E. dorsalis*, Baird & Girard, *Catal.* pp. 30, 31.

Ground colour olive, greenish or brown; stripes very conspicuous.

Subvar. 1. Space between bands black-spotted; two yellow spots on the occipital shields.

- y.* Adult. North America. Presented by Dr. Jacob Green.  
*z.* Adult. Greatly injured. North America. Presented by Edward Doubleday, Esq.  
*a.* Half-grown. North America. Presented by Edward Doubleday, Esq.  
 $\beta$ - $\delta$ . Adult and young: not good state. North America. Old Collection as *C. tæniatus*, Dr. E. W. Gray.  
 $\epsilon, \eta$ . Adult. North America.  
 $\theta, \zeta$ . Half-grown: not good state. North America.  
*ι.* Half-grown. North America.

Subvar. 2. Space between bands black-spotted, without spots on the occiput.

- $\kappa$ . Half-grown: tail injured. North America. Presented by Edward Doubleday, Esq.  
 $\lambda$ . Half-grown: bad state. North America. Presented by Edward Doubleday, Esq.  
 $\mu$ . Adult. New York. Presented by Mr. J. Murray.  
 $\nu$ . Adult: fine specimen. North America.



ξ. Very large specimen: head injured. North America. Old Collection.

ο. Young. North America.

Subvar. 3. Space between bands uniform, olive, brown or black.

*Eutainia radix* and *E. elegans*, *Baird & Girard, Catal.* p. 34.

π. Adult. North America.

ρ-τ. Adult and young. Lake Winipeg. Presented by Sir John Richardson.

υ, φ. Adult and half-grown. North America.

χ. Some specimens in a bad state. North America.

ω. Half-grown: not good state. North America. From Mr. Mather's Collection.

αα. Half-grown: bad state. North America.

Subvar. 4. Each scale in the space between the bands with a yellow streak.

bb. Adult. *Sine patria*.

Var. C. *Coluber infernalis*, *Blainv. N. Ann. Mus. d'Hist. Nat.* iii. pl. 26. f. 3. *Eutainia infernalis*, *E. pickeringii*, and *E. parietalis*, *Baird & Girard, Catal.* p. 26 et seq. *Tropidonotus* (Col.) *parietalis*, *Say, in Long's Exped. to Rocky Mount.* i. p. 186; *Sitgreave's Report of an Exped.* pl. 17.

Above black, with a very distinct yellow streak; lateral streaks indistinct, confluent with a series of red (in spirits white) spots.

cc. Adult. California. From Mr. Stevens's Collection.

dd, ee. Adult and half-grown: injured. California. From the Haslar Collection.

ff. Adult: injured. California. From the Haslar Collection.

gg. Adult: female. California. From the Haslar Collection.

hh, ii. Adult and half-grown. Monterey. Presented by J. H. Gurney, Esq.

kk. Young. Monterey.

ll. Four adult specimens. N. America.

mm. Adult. N. America. From the Haslar Collection.

nn. Adult: bad state. N. America. Presented by the College of Surgeons.

oo. Young. N. America. From the Haslar Collection.

Var. D. *Tropidonotus concinnus*, *Hallow. Proc. Acad. Nat. Sc. Philad.* 1852, p. 182. *Eutainia concinna*, *Baird & Girard, Catal.* p. 146.

Above black with a yellow dorsal streak; lateral streaks replaced by a series of whitish blotches; belly slate-blue.

pp. Adult. Columbia River. Presented by Mr. Loftus.

*f. Species allied to T. fasciatus.*

17. TROPIDONOTUS FASCIATUS.

Scales in twenty-three or twenty-five rows; upper labials eight, the fourth only touching the eye; anterior ocular one, posterior three; anal bifid. The distribution of the colours is liable to great variation: ground colour olive-brown, brown or black with two or three series of large blotches.

Var. A. The Brown Viper, *Catesby, Nat. Hist. of Carol.* t. 45. *Coluber fasciatus*, *Linn. Syst. Nat.* ed. xii. p. 378; *Shaw, Gen. Zool.* p. 463. t. 120. *Coluber porcatus*, *Latr. Rept.* iv. p. 82; *Daud. Rept.* vi. p. 204; *Harlan, Med. & Phys. Res.* p. 119. *Tropidonotus fasciatus*, *Boie, Isis*, 1827, p. 535; *Holbr. N. Amer. Herpet.* iv. pl. 25; *Dekay, New York Fauna*, p. 47; *Dum. & Bibr.* vii. p. 566. *Tropidonotus porcatus*, *Boie, Isis*, 1827, p. 535. *Nerodia fasciata*, *Baird & Girard, Catal.* p. 39.

On each side a series of large triangular red-brown blotches.

a. Adult: head injured. Mexico. From Mr. Warwick's Collection.

b. Adult: skin. Central America.

c, d. Half-grown and young. New Orleans. From Mr. Cuming's Collection.

e. Young. N. America. Presented by Edward Doubleday, Esq.

f, g. Young. North America. From Mr. Cuming's Collection.

h. Adult: tail injured: bleached. N. America. Old Collection.

i. Adult. N. America. Old Collection.

k. Adult. N. America. From Paris.

l. Adult. N. America. Presented by the Zoological Society.

Var. B. *Coluber sipedon*, *Linn. Syst. Nat.* ed. xii. p. 379; *Shaw, Gen. Zool.* iii. p. 496; *Merr. Tent.* p. 124; *Storer, Reports*, p. 228; *Lacép. Quadr. Ovip.* p. 305; *Bonnat. Ophiol.* p. 53; *Latr.* iv. p. 177; *Daud. Rept.* vii. p. 148. *Tropidonotus sipedon*, *Holbr. N. Amer. Herpet.* iv. pl. 26. *Nerodia sipedon*, *N. woodhousii*, and *N. transversa*, *Baird & Girard, Catal.* p. 38 et seq. *Tropidonotus fasciatus*, var., *Dum. & Bibr.* vii. p. 568. *Tropidonotus woodhousii* and *T. transversus*, *Sitgreave's Report of an Exped.* pl. 14 & 16.

On the back and on each side a series of large square black blotches; the blotches of the dorsal series alternating with those on the sides. Sometimes the blotches are obsolete.

m. Adult. Canada. Presented by J. Cruickshanks, Esq.

n. Half-grown: bad state. North America. Presented by Edward Doubleday, Esq.

o. Young. North America. Presented by Dr. Jacob Green.

- p.* Young. North America. From Mr. Stevens's Collection.  
*q.* Half-grown. Louisiana.  
*r, s.* Half-grown. New Orleans. From M. Sallé's Collection.  
*t.* Half-grown. New Orleans. From Mr. Cuming's Collection.  
*u-w.* Young. Mexico. Vertical shield behind broader, lateral margins concave.  
*x.* Adult: not good state. N. America. Presented by the College of Surgeons. Quite agreeing with Holbrook's figure.  
*y.* Half-grown. North America.  
*z.* Half-grown. North America. From Mr. Thomas's Collection.  
*a-δ.* Adult and half-grown. Mexico. From Mr. Warwick's Collection.  
*ε, η.* Adult. Mexico. From Mr. Warwick's Collection.  
*θ.* Half-grown: bad state. Mexico.

Var. C. *Tropidonotus pogonias*, *Dum. & Bibr.* vii. p. 574.

Brown, with a lateral series of large obsolete blotches; shields of chin with small rough tubercles.

- ι.* Adult. New Orleans. From M. Sallé's Collection.

Var. D. *Tropidonotus niger*, *Holbr. N. Amer. Herpet.* iv. pl. 9. *Nerodia nigra*, *Baird & Girard, Catal.* p. 147. *Tropidonotus fasciatus*, var., *Dum. & Bibr.* vii. p. 572.

Uniform brownish black.

- κ.* Adult: injured. North America. Presented by Edward Doubleday, Esq.

Var. E. Above uniform blackish grey, belly marbled with brown.

- λ.* Adult. North America. Presented by the Zoological Society.

The geographical distribution of these varieties, as given by Holbrook in his 'North American Herpetology,' is not proved by the specimens contained in the British Museum. It may be admitted, that the native country, mentioned in some of the latter, is doubtful.

## 18. TROPIDONOTUS CYCLOPION.

*Duméril et Bibron*, vii. p. 576.

Scales in twenty-nine rows; orbit enclosed by a continuous chain of small shields, upper labials not touching the eye. Lead-coloured, obscurely black-spotted; belly yellowish, with irregular black blotches.

- a.* Adult. New Orleans. From Mr. Cuming's Collection.

*g. Species allied to T. leberis.*

19. TROPIDONOTUS LEBERIS.

*Coluber leberis*, Linn. *Syst. Nat.* ed. x. t. i. p. 216; *Shaw*, *Gen. Zool.* iii. p. 433; *Daud. Rept.* vi. p. 218. *Vipera leberis*, *Latr. Rept.* iv. p. 8. *Coluber septemvittatus*, *Say, Journ. Acad. Nat. Sc. Philad.* iv. p. 240; *Harlan, Med. and Phys. Res.* p. 118. *Tropidonotus leberis*, *Holbr. N. Amer. Herpet.* iv. pl. 13; *Dekay, New York Fauna, Rept.* pl. 11. f. 23. *Regina leberis*, *Baird & Girard, Catal.* p. 45; *Dum. & Bibr.* vii. p. 579.

Scales in nineteen rows; upper labials seven, the third and fourth touching the eye; anterior oculars two, posterior two. Above dusky olive-brown, with a lateral yellow band, and three dorsal black lines; abdomen pale yellow with four dusky lines.

- a.* Adult: bleached. North America. Old Collection.
- b.* Young. North America. Presented by Dr. Jacob Green.
- c.* Adult. North America. From Mr. Cuming's Collection.
- d.* Half-grown. North America. Presented by the College of Surgeons.

20. TROPIDONOTUS GRAHAMII.

*Regina grahamii*, *Baird & Girard, Catal.* p. 47.

Scales in nineteen rows, strongly keeled; upper labials eight, the third and fourth touching the eye; anterior oculars two, posterior two. Head small, narrow, indistinct. Above brown, a broad yellow, black-edged lateral band, occupying the three outer rows of scales; belly uniform yellow in the adult.

- a.* Adult. North America. From Mr. Mather's Collection.
- b.* Young. Western Mexico. From the Haslar Collection.—  
Along the middle of the belly a blackish band.
- c.* Young: head injured. New Orleans. From Mr. Cuming's Collection.—Like the former.
- d.* Half-grown. North America.—Middle of belly black.

21. TROPIDONOTUS MEDUSA.

Scales in twenty-one rows; upper labials eight, the fourth and fifth touching the eye; anterior ocular one, posterior two. Above dusky olive-brown, with five yellow bands, the lateral including the edge of abdomen; the remainder of each ventral plate black, in the centre with a regular yellow triangle, forming together a longitudinal band in the middle of belly.

- a.* Adult. Texas. From Mr. Brandt's Collection.
- b.* Young. North America.



*Description*.—Rostral shield just reaching the surface of head; anterior frontals rectangular triangular, pointed in front; posterior frontals nearly square, but bent on the sides; vertical and occipitals moderate; the nostril between two shields; loreal large; one large anterior and two posterior oculars, the anterior one sometimes furrowed, but not divided; eight rather narrow upper labials, the fourth and fifth forming the lower edge of orbit; lower posterior ocular in contact with one large temporal shield, three smaller ones behind. Scales in twenty-one rows, all keeled, even some of those in the outer row; anal bifid.—Dusky olive-brown; one yellow vertebral stripe, beginning on the occiput; another on each side of the back, beginning from the back edge of eye; along the side a broad yellow band, beginning from the muzzle, occupying the outer row of scales, the next upper half-row, and the contiguous edges of the ventral plates. The remainder of the latter black, each provided in the centre with a yellow triangle. The triangles, with the broad end behind, form together a very strongly marked band, or a chain of triangles from the chin-shields, which are yellow, to the tip of the tail.

*h. Species allied to T. cerasogaster.*

22. *TROPIDONOTUS CERASOGASTER.*

*Psammophis cerasogaster*, *Cantor, Proc. Zool. Soc.* 1839, p. 52.  
*Tropidonotus cerasogaster*, *Cantor, Ann. & Mag. Nat. Hist.* 1847, p. 92.

Scales in nineteen rows; one anterior, three posterior oculars; nine upper labials, only the fourth touching the eye. Above dark brown, sometimes with two lighter stripes; belly black, or purple, marbled with black; from the muzzle along the upper labials and the edge of abdomen to the tip of tail a straw-yellow stripe.

*a. Adult. Khasya. Presented by Dr. J. Hooker.*

*b. Adult. India. From M. Parzudaki's Collection.*

*c, d. Adult. India. From Mr. Argent's Collection.*

*e. Adult. India. From Mr. Argent's Collection.*

*f. Half-grown. India. From Mr. Argent's Collection.*

*g. Adult: head injured. India. Presented by the Zoological Society.*

The only species of the genus, exhibiting all the teeth of equal length; moreover it differs in having prominent superciliaries and a groove before the eye, a flat, not rounded, rostral shield, and a narrow, elongated muzzle. But in all other characters it agrees with *Tropidonotus*, even in having two yellow spots on the occipitals.

*i. Species allied to T. auriculatus.*

## 23. TROPIDONOTUS AURICULATUS.

Scales in seventeen rows; upper labials eight, third, fourth and fifth touching the eye; anterior frontals rather obtuse in front. Above brown, with an obsolete lighter dorsal stripe; a broad yellow streak behind the eye to the angle of mouth; belly white, with three black longitudinal bands, the middle one broadest.

*a.* Philippine Islands. From Mr. Cuming's Collection.

*Description.*—Habit slender; head short, thick, distinct from neck; eyes large; rostral semicircular, hardly reaching the surface of head; anterior frontals subquadrangular, rather obtuse in front; posterior ones moderate; vertical moderate, with convergent outer edges; hinder ones forming an acute angle; occipitals large, spheroid; two anterior and two posterior oculars, one loreal, two nasals; eight upper labials, third, fourth and fifth coming into the orbit. Scales elongate, keeled, in seventeen rows; anal bifid. Posterior maxillary teeth longest, not grooved, in a continuous series with the anterior ones.—Above brown, with a lighter dorsal streak on the anterior part of body; some scales black-edged; a yellow spot behind the eye, running obliquely to the angle of mouth; belly yellow, with a broad black medial band from the breast to the anus; on each side a narrower black streak, from the throat to the anus; tail beneath black, each plate provided with a yellow spot, forming together a punctated yellow medial line. Length of cleft of mouth  $\frac{3}{8}$ " ; length of tail  $4\frac{1}{2}$ " ; total length  $18\frac{1}{2}$ ".

*k. Species allied to T. vibakari.*

## 24. TROPIDONOTUS VIBAKARI.

*Tropidonotus vibakari*, *Boie, Isis*, 1826, p. 207; *Siebold, Faun. Japon. Ophid.* t. 5; *Schleg. Ess.* ii. p. 316; *Dum. & Bibr.* vii. p. 595.

Body and tail rather slender; head not distinct from neck. Scales in nineteen rows; upper labials seven, the third and fourth touching the eye. Above uniform pale brown, without spots; on each side of neck a white, oblique, narrow streak; belly pale, with a lateral series of small black spots.

*a, b.* Adult. Japan. From the Leyden Museum.

5. ISCHNOGNATHUS, *Dum. & Bibr.*

Small *Natricidæ* with teeth of equal length. Body and tail rounded, of moderate length; head short, narrow; nostril between

two nasals; no loreal shield; anal and subcaudal plates two-rowed. Scales elongate, keeled, in fifteen or seventeen rows. North America.

*Ischnognathus*, *Dum. & Bibr. Mém. de Sc. Nat.* 1852, p. , and *Erpet. Gén.* vii. p. 506. *Storeria*, *Baird & Girard, Catal.* p. 135. *Tropidonotus*, sp., *Holbrook, Storer.*

### 1. ISCHNOGNATHUS DEKAYI.

*Tropidonotus dekayi*, *Holbr. N. Amer. Herpet.* iv. t. 14; *Dekay, Fauna New York, Rept.* t. 14. f. 30. *Tropidonotus saurita*, var., *Schleg. Ess.* ii. p. 321. *Storeria dekayi*, *Baird & Girard, Catal.* p. 135. *Ischnognathus dekayi*, *Dum. & Bibr.* vii. p. 507.

Scales in seventeen rows. Olive-grey or brown, with a whitish vertebral band, margined by irregular small black spots. Head olive, varied with some black spots in the centre of the crown and on the occiput; neck without white blotch.

*a, b.* Adult. Texas. From Mr. Brandt's Collection.

*c, d.* Adult. Texas. From Mr. Cuming's Collection.

*e.* Adult. New Orleans.

*f.* Adult. North America.

### 2. ISCHNOGNATHUS OCCIPITO-MACULATUS.

*Tropidonotus occipito-maculatus*, *Storer, Rep. Rept. Massach.* p. 230. *Coluber venustus*, *Hallow. Proc. Acad. Nat. Sc. Philad.* iii. p. 274. *Storeria occipito-maculata*, *Baird & Girard, Catal.* p. 137. *Ischnognathus dekayi*, var. B, *Dum. & Bibr.* vii. p. 509.

Scales in fifteen rows. Olive-grey or brown, sometimes with a paler vertebral band, bordered by blackish spots. Head olive, varied with some black spots in the centre of the crown; three whitish blotches on the occiput and neck.

*a.* Adult. North America. Presented by Sir R. I. Murchison.

*b.* Adult: bleached. North America. Presented by Dr. Jacob Green.

*c, d.* Half-grown. North America.

*e.* Half-grown. N. America. From Mr. Stevens's Collection.

*f.* Half-grown: tail injured. North America.

*g.* Half-grown. United States.

*h.* Adult: good state. North America. From the Haslar Collection.

*i.* Adult: greatly injured. North America.

*k.* Adult: bleached. North America.

*l.* Half-grown. North America.

*m.* Half-grown: bad state. North America.



6. HETERODON, *Palisot de Beauvais*.

Body short, thick; tail short; head short, large, flat; head and neck very distensible; rostral shield a trihedral pyramid, prominent, acute, recurved, with a sharp ridge above. Subcaudal plates bifid. Posterior maxillary teeth longer, smooth, and separated from the anterior ones by an interval. America; Madagascar.

Heterodon, *Palisot de Beauvais*; *Gray, Synopsis*, p. ; *Fitzinger, Nov. Syst.* p. 56; *Schlegel, Essai*, p. 95; *Holbr. N. Amer. Herpet.* iv. p. 37; *Baird & Girard, Catal.* p. 51; *Dum. & Bibr.* vii. p. 764. Oxyrhina, *Gray, Brit. Mus.* Vipera, sp., Pelias, sp., Scytale, sp., Coluber, sp., *auct. prior.*

## 1. HETERODON PLATYRHINOS.

Hog-nose Snake, *Catesby*, ii. t. 56. Coluber simus, *Linn. Syst. Nat.* ed. xii. p. 375; *Lacépède, Quadr. Ovip. Serp.* ii. p. 84. Heterodon platyrhinus, *Latr. Rept.* iv. f. 1-3; *Daud. Rept.* v. pl. 60. f. 28; *Wagl. Nat. Syst.* p. 171. Coluber heterodon, *Merr. Tent.*; *Harlan, Med. and Phys. Researches*, p. 120. Heterodon annulatus, var., *Troost, Ann. Lyc. New York*, iii. p. 188; *Schleg. Ess.* ii. p. 97, var.; *Storer, Reports of Massach.* p. 131; *Holbr. N. Amer. Herpet.* iv. t. 17. H. platyrhinus, H. cognatus, and H. atmodes, *Baird & Girard, Catal.* p. 51, &c.; *Dum. & Bibr.* vii. p. 766.

Scales keeled; behind the rostral an azygos shield, in direct contact with the frontals; orbit surrounded by small shields; upper labials not in contact with the eye. Ground colour dark or light brown, with a dorsal and a lateral series of large light or brown blotches, sometimes confluent into cross bands; head with a dark band between the eyes.

- a. Adult. North America. Presented by Dr. R. Harlan.
- b. Adult: discoloured. North America. Old Collection.
- c. Nearly half-grown. North America. Presented by Edward Doubleday, Esq.
- d. Nearly half-grown. Charleston. From Paris as *H. maculatus*.
- e. Half-grown. California.
- f. Adult: discoloured. Central America. Presented by Mrs. Drummond.
- g. Adult. Texas. From Mr. Brandt's Collection as *H. texianus*.
- h. Half-grown. N. America. Old Collection.
- i. Young. N. America. Presented by the College of Surgeons.
- k. Half-grown. North America. From Mr. Cuming's Collection.



## 2. HETERODON NIGER.

*Vipera nigra*, *Catesby*, *Hist. Nat. Carol.* pl. 44. *Coluber caco-dæmon*, *Shaw*, *Gen. Zool.* iii. pl. 102. *Scytale niger*, *Daud.* *Hist. Nat. Rept.* v. p. 342; *Harlan*, *Journ. Acad. Nat. Sc. Philad.* v. p. 367. *Pelias niger*, *Merr. Tent.* p. 149. *Coluber thraso* and *Scytalus niger*, *Harlan*, *Phys. and Med. Res.* p. 120. *Heterodon niger*, *Troost*, *Ann. Lyc. Nat. Hist. New York*, iii. p. 186; *Holbr. N. Amer. Herpet.* iv. pl. 16. *H. vipera*, *Fitz. Syst. Nat.* 56. *H. platyrhinos*, var., *Schleg. Ess.* ii. p. 100; *Baird & Girard*, *Catal.* p. 55; *Dum. & Bibr.* vii. p. 769.

Scales keeled; shields of head like in *H. platyrhinos*. Whole body black above, without any spot; slate-colour below.

a. Adult: partly bleached. N. America. Old Collection as *Heterodon nigricans*. 136 ventral plates. Perhaps only a variety of *H. platyrhinos*.

## 3. HETERODON CATESBYI.

*Oxyrhina catesbyi*, *Gray in Brit. Mus.* 1836. *Heterodon platyrhinos*, var., *Schleg. Ess.* pl. 3. f. 20-22. *Heterodon simus*, *Holbr. N. Amer. Herpet.* iv. pl. 15. *Heterodon simus* and *H. nasicus*, *Baird & Girard*, *Catal.* p. 59, &c. *Heterodon platyrhinos*, var., *Dum. & Bibr.* vii. p. 767. *Heterodon nasicus*, *Baird & Girard in Marcy*, *Explor. of the Red River*, pl. 4.

Scales keeled; behind the rostral an azygos shield, surrounded by smaller scale-like shields; orbit surrounded by similar shields; upper labials not in contact with the eye. Coloured like *H. platyrhinos*.

- a. Adult: bleached. N. America. From Sir H. Sloane's Collection.
- b. Adult. Texas. From Mr. Brandt's Collection.
- c. Nearly half-grown. North America. Presented by the College of Surgeons.
- d. Nearly half-grown. North America. Presented by the College of Surgeons.
- e. Half-grown. N. America. From Mr. Cuming's Collection.
- f. Young. N. America. Presented by the College of Surgeons.
- g. Adult. N. America. Presented by the College of Surgeons.

Specimens *b*, *e*, *f*, belong to the variety *H. nasicus*.

## 4. HETERODON D'ORBIGNYI.

*Dum. & Bibr.* vii. p. 772.

Scales smooth; behind the rostral a small azygos shield, in

direct contact with the frontals; upper labials not touching the orbit, separated from it by suborbitals. Ground colour yellowish brown, with a dorsal and a lateral series of large dark blotches; beneath with oblong black spots.

- a. Adult. Buenos Ayres. From M. Parzudaki's Collection.
- b. Adult. South America. From the Haslar Collection.
- c. Adult. South America.

#### 5. HETERODON MADAGASCARIENSIS.

*Dum. & Bibr.* p. 776. pl. 69.

Scales smooth; azygos shield behind the rostral none; two of the upper labials coming into the orbit. Brown, sometimes on the sides with broad, black, oblique, confluent cross bands.

- a. Adult. Madagascar. From the Leyden Museum. (Uniform.)

### Fam. IV. COLUBRIDÆ.

Body moderate, sometimes elongate, in the last genera sometimes slender. Tail generally of moderate length, not distinct from trunk, tapering. Head moderate, with flat crown, rather distinct from neck, quadrangular, with moderate rounded, sometimes pointed muzzle. Shields of head exceptionally irregular. Cleft of mouth deep. Nostril lateral. Eye moderate, sometimes large, with round pupil. Loreal shield never wanting. Nostril between two nasals. Scales ovoid, of nearly equal size on the back, moderately imbricate. Subcaudals two-rowed. Teeth never grooved, generally of equal length; in one genus posterior maxillary tooth longest; in another, maxillary teeth becoming gradually longer behind.

Coluber, *Schleg. Ess.* ii. p. 125. Plagiodontiens, Coryphodontiens, Isodontiens pt., Periops, Zamenis (Diacrantériens), *Dum. & Bibr.*

#### *Synopsis of the Genera.*

1. RHINECHIS. Rostral shield much protruding, rounded, higher than broad, far produced backwards, sharply pointed behind. Scales smooth. South Europe.
2. PITUOPHIS. Rostral shield as in *Rhinechis*. Scales keeled. North America.
3. COLUBER. Rostral moderate. Body with rounded back, generally moderate; one anterior, two posterior oculars. Teeth equal. Europe; Asia; North America.

4. ELAPHIS. Rostral moderate. Body and tail elongate, rather compressed; two anterior, two posterior oculars. Scales keeled. Teeth equal. Europe; Asia.
5. CYNOPHIS. Muzzle much elongate. Body and tail compressed; one anterior, two posterior oculars. Scales keeled. Pterygo-palatine teeth bent inwards. East Indies.
6. SPILOTES. Rostral moderate. Body and tail much elongate and compressed; one anterior, two or three posterior oculars. Teeth equal. East Indies; South America.
7. ZAMENIS. Body and tail moderate or slender. Posterior maxillary tooth longest, separated by an interspace. Shores of Mediterranean; Asia.
8. CORYPHODON. Maxillary teeth becoming gradually stronger and longer behind. East Indies; America; Africa.

### 1. RHINECHIS, *Michahelles*.

Body moderate, rounded; tail short; head conical, short, with pointed muzzle. Rostral much protruding, higher than broad, sharply pointed behind, far produced backwards; one loreal; one anterior, two or three posterior oculars. Scales smooth, small, in twenty-seven rows. Teeth equal, smooth. South Europe.

Rhinechis, *Michahelles* in *Wagler's Icon.*; *Bonap. Faun. Ital.*; *Dum. & Bibr.* vii. p. 227. *Xenodon*, sp., *Schlegel, Ess.* ii. p. 92. *Coluber*, sp., *Schinz, in Uebersetzung von Cuvier's Thierreich*; *Boie, Isis*, 1827, p. 536.

#### 1. RHINECHIS SCALARIS.

*Coluber scalaris*, *Schinz, in Cuvier's Thierreich übers. von Schinz*; *Boie, Isis*, 1827, p. 536. *Rhinechis Agassizii*, *Michahelles*, *Wagl. Ic.* t. 25. *Xenodon michahelles*, *Schleg. Ess.* ii. p. 92. *Rhinechis scalaris*, *Bonap. Faun. Ital.* pl. ; *Dum. & Bibr.* p. 227.

Two dark brown longitudinal stripes on the back.

- a. Half-grown. Europe. From M. Parzudaki's Collection.
- b. Adult: bleached. Europe.

### 2. PITUOPHIS, *Holbrook*.

Body moderate, rounded; tail moderate; head conical, with pointed muzzle. Rostral protruding, raised above the surface of head; one loreal, one or two anterior oculars, posterior ones

variable in number. Scales keeled, small. Anal entire. Teeth equal, smooth. Ground colour whitish, with a dorsal series of large quadrangular brown spots. America.

Pituophis, *Holbr. N. Amer. Herpet.* iv. p. 7; *Baird & Girard, Catal.* p. 64; *Dum. & Bibr.* p. 232. Coluber, sp., *Daud. Rept.* vi. p. 409; *Harlan, Journ. Acad. Nat. Sc. Philad.* 1827; *Blainville, Nouv. Ann. d'Hist. Nat.* 1835.

The separation of the specimens of this genus into species is attended with great difficulty, and we freely confess the following diagnoses are uncertain, as we think the species lately founded by herpetologists. Having only a few specimens in the collection, we are not able to unravel the contradictions between the *Erpétologie générale* and the descriptions of Baird and Girard, especially as not one of our specimens quite agrees with those descriptions. But we feel certain that the number of the posterior oculars is liable to great variation (2-5), not only in the different specimens of one species, but often in the two sides of the same individual.

## 1. PITUOPHIS VERTEBRALIS.

Coluber vertebralis, *Blainville, Nouv. Ann. Mus. d'Hist. Nat.* 1835, pl. 27. f. 2; *Baird & Girard, Catal.* p. 152 (not *Dum. & Bibr.* p. 238).

Scales in twenty-seven to twenty-nine rows; shields of crown regular; rostral nearly as broad as high; eight upper labials; one anterior ocular.

- a. Adult. Mexico. From M. Sallé's Collection.
- b. Half-grown. Mexico. From M. Sallé's Collection.
- c. Adult. Mexico. From the Haslar Collection.
- d. Adult. Mexico.

## 2. PITUOPHIS MELANOLEUCUS.

Coluber melanoleucus, *Daud. Rept.* vi. p. 409; *Harl. Journ. Acad. Nat. Sc. Philad.* 1827, p. 359, and *Med. Phys. Res.* 1835, p. 122; *Bartram, Trav. Carol.* p. 276. Pituophis melanoleucus, *Holbr. N. Amer. Herpet.* iv. pl. 1; *Baird & Girard, Catal.* p. 65; *Dum. & Bibr.* p. 233.

Scales in twenty-nine rows; each posterior frontal divided into two; rostral nearly as broad as high; eight upper labials; one anterior, three posterior oculars.

- a. Young. America.



3. *PITUOPHIS CATENIFER*.

*Coluber catenifer*, *Blainv. Nouv. Ann. Mus. d'Hist. Nat.* 1834, iv. pl. 26. f. 2. *Pituophis catenifer*, *Baird & Girard, Catal.* p. 69.

Scales in thirty-one rows; each posterior frontal divided into two; no azygos shield before the vertical; rostral as broad as high, moderately protruding; eight upper labials, two anterior oculars.

*a.* Adult: head injured. Monterey. Presented by J. H. Gurney, Esq., M.P.

4. *PITUOPHIS BELLONA*.

*Baird & Girard, in Stansbury's Explor. Valley of Great Salt Lake*, 1852, p. 350; *Catal.* p. 66. *Pituophis affinis*, *Hallow. Proc. Acad. Nat. Sc. Philad.* 1852, p. 181; *Capt. Sitgreave's Report Exped. Zuni*, 1853, p. 130. pl. 10.

Scales in thirty-three to thirty-seven rows; each posterior frontal divided into two; a small azygos shield before the vertical; nine upper labials (*Baird & Girard*, eight); one anterior, four posterior oculars.

*a.* Half-grown: injured. Mexico. From Mr. Warwick's Collection.

5. *PITUOPHIS MEXICANUS*.

*Dum. & Bibr.* vii. p. 236.

Scales in twenty-nine rows; each posterior frontal divided into two; rostral shield much higher than broad, very protruding; eight upper labials ("nine," *Dum. & Bibr.*); one anterior ocular.

*a.* Very large specimen. Mexico.

3. *COLUBER*, *Linn.*

Body and tail rounded above, generally of moderate length; head moderate, high, rounded, sometimes rather elongate; rostral rounded, moderate; one loreal, one anterior, two posterior oculars. Scales generally weakly keeled, sometimes smooth. Teeth equal, smooth. Belly generally checkered with black. Europe; Asia; North America.

*Coluber*, sp., *Linn. Mus. Ad. Fried.*, and *Syst. Nat.* t. i.; *Gmelin, Syst. Nat.* t. i.; (*Merr. Tent.*;) *Boie, Isis*, 1826; *Schleg. Ess. sur la Phys. Serp.* *Elaphis*, *Ablabes*, sp., *Dum. & Bibr.* vii. pp. 243, 307. *Calopeltis*, *Bonap. Amph. Eur.* p. 47.

## 1. COLUBER ÆSCULAPII.

*Anguis Æsculapio sacer*, *Gesner, De Serpent.* v. p. 44. *Natrix longissima*, *Laurenti, Syn.* p. 74. *Coluber flavescens*, *Gmelin, Syst. Nat.* p. 1115; *Daud. Rept.* vi. p. 272; *Boie, Isis*, 1827, p. 536; *Lenz, Schlangenkunde*, p. 509; *Schinz, Fauna der Schweiz*, i. p. 142; *Bonap. Fauna It.* pl. ; *Lacép. Hist. Nat. Quadr. Ovip.* ii. p. 165; *Bonnat. Ophiol.* p. 43. *Coluber æsculapii*, *Sturm's Fauna*, iii. Heft ii. f. a; *Shaw, Zool.* iii. p. 452; *Latr. Rept.* iv. p. 54; *Daud. Rept.* vii. p. 30; *Cuv. Règne An.*; *Boie, l. c.*; *Lenz, l. c.* p. 517; *Schleg. Ess.* pl. 5. f. 1, 2. *Coluber scopoli*, *Merr. Tent.* p. 104; *Risso, Hist. Nat. Eur. Mérid.* iii. p. 90. *Zamenis æsculapii*, *Wagl. Syst. Amph.* p. 188. *Calopeltis flavescens*, *Bonap. Amph. Eur.* p. 47. *Elaphis æsculapii*, *Dum. & Bibr.* p. 278.

Scales in twenty-one or twenty-three rows, those on the posterior part of the back so slightly keeled as to be hardly visible; anal bifid; upper labials eight, the fourth and fifth reaching the orbit. Above uniform brownish grey, beneath yellowish; on each side of the neck a yellow or lighter spot.

a. Adult. France. Presented by M. Verreaux.

b. Adult. Europe. Presented by J. J. Bianconi.

## 2. COLUBER QUADRIVITTATUS.

Chicken Snake, *Bartr. Trav. in Florida*, p. 275. *Coluber quadrivittatus*, *Holbr. N. Amer. Herpet.* iii. pl. 20; *Dekay, New York Fauna*, iii. p. 41. *Scotophis quadrivittatus*, *Baird & Girard, Catal.* p. 80. *Elaphis quadrivittatus*, *Dum. & Bibr.* p. 265.

Body and tail slender. Scales keeled, in twenty-seven rows. Anal bifid; eight upper labials, fourth and fifth coming into the orbit. Dull yellowish, with four longitudinal brown stripes.

a. Adult. N. America. Presented by Edward Doubleday, Esq.

b. Adult. N. America.

c. Adult. N. America. Presented by the College of Surgeons.

## 3. COLUBER QUADRILINEATUS.

*Coluber quadrilineatus*, *Pallas, Zoogr. Rosso-Asiat.* iii. p. 40. *Coluber cruentatus*, *Steven. Bull. Soc. Nat. Mosc.* viii. pl. 9. *Coluber leopardinus*, *Bonap. Faun. Ital.* pl. ; *Schleg. Ess.* ii. 169. *Calopeltis leopardinus*, *Bonap. Amph. Eur.* p. 48; *Nordmann, in Voy. Russ. Mérid. par A. Demidoff, Rept.* pl. 6. f. 1 (young), pl. 8 & 9. *Ablabes quadrilineatus*, *Dum. & Bibr.* vii. p. 319.

Scales smooth, in twenty-five or twenty-seven rows; upper labials eight, fourth and fifth coming into the orbit; anal bifid. Above reddish brown, with four series of rounded or ovoid black-

edged spots, sometimes confluent and forming four longitudinal bands; belly with quadrangular blotches of black; crown with a well-defined black cross band between the eyes, and a narrower black stripe from the lateral edge of the vertical shield to the angle of mouth; suture of the occipitals black. Snout blunt, rounded in front.

Var. A. *Coluber cruentatus* et *C. leopardinus*.

- a.* Adult. China. Haslar Hospital.
- b, c.* Young. South Europe. Presented by R. B. Webb, Esq.
- d.* Adult: injured. South Europe.
- e.* Half-grown. Europe. Presented by W. Richardson, Chatham.
- f.* Young: bad state. Europe. Presented by Mr. Petit.

Var. B. *Coluber quadrilineatus*. Scales of the hinder part of the back sometimes very slightly keeled.

- g.* Adult. Europe. From Mr. Argent's Collection.
- h.* Young. Ionian Islands. Presented by Dr. Mann.
- i, k.* Half-grown and young. Europe.
- l.* Adult. Europe. From the Collection of the Zoological Society.

#### 4. *COLUBER RUFODORSATUS*.

*Tropidonotus rufodorsatus*, *Cantor, Ann. & Mag. Nat. Hist.* 1842, p. 483.

Body and tail stout. Scales smooth, in twenty-one rows; upper labials seven, the third and fourth coming into the orbit. Above grey, with four darker, black-edged bands, very conspicuous on the posterior parts, anteriorly forming rows of elliptic spots; crown with regular arrow-shaped marks; a black streak from the back edge of eye to the angle of mouth; belly checkered with black. (In general appearance similar to *Tachymenis chilensis*.)

- a.* Adult: fine specimen. Chikiang. From Mr. Fortune's Collection.
- b.* Adult. Near Ningpo. From Mr. Cuming's Collection.
- c, d.* Adult and half-grown. Chusan.
- e.* Adult: bad state. Port Essington. From the Haslar Collection.
- f.* Adult: not good state. India. From the Haslar Collection.

#### 5. *COLUBER GUTTATUS*.

*Catesby, Hist. Carol.* t. 55. *Coluber guttatus*, *Linn. Syst. Nat.* i. p. 385; *Daubent. Quadr. Ovip. Serp.* p. 602; *Lacép. Quadr. Ovip. Serp.* ii. p. 329; *Bonnat. Ophiol.* p. 19; *Schleg. Ess.* ii. p. 168, part. descr.; *Holbr. N. Amer. Herpet.* iii. pl. 14. *Coluber*



compressus (Zusammengedrückte Natter), *Merr. Beitr.* ii. t. 11. *Coluber carolinianus*, *Shaw, Zool.* iii. p. 460. pl. 119. *Coluber maculatus*, *Latr. Rept.* iv. p. 73. *Coluber molossus*, *Daud. Rept.* vi. p. 269. *Coluber guttatus*, *C. maculatus*, and *C. pantherinus*, *Merr. Tent.* *Coluber molossus*, *C. maculatus*, and *C. floridanus*, *Harl. Journ. Acad. Nat. Sc. Philad.* 1827, p. 360, &c., and *Med. Phys. Res.* p. 124, &c. *Scotophis vulpinus*, *S. confinis*, *S. lætus*, and *S. guttatus*, *Baird & Girard, Catal.* p. 75, &c. (*Marcy, Explor. of the Red River*, p. 227. pl. 6, *S. lætus*). *Elaphis guttatus*, *Dum. & Bibr.* p. 273.

Body and tail moderate, slightly compressed; head rather elongate. Scales in twenty-five or twenty-seven rows, weakly keeled; eight upper labials, fourth and fifth coming into the orbit; anal bifid. Red-brown above, with a dorsal series of large, lighter, black-edged blotches; crown generally with similar spots; generally a temple streak; belly checkered with black.

a. Half-grown. New York.

b. Young: injured. Delaware. Presented by H. Doubleday, Esq.

c. Young. Monterey.

d. Adult: female. Mexico. From Hugo Finck's Collection.

e. Half-grown. Mexico. From M. Sallé's Collection.

f. Half-grown. Mexico. From Mr. Warwick's Collection.

g. Half-grown. Belize.

h. Half-grown. North America.

i. Young monster, presented by Lord Orkney: two individuals, but with united vertebral column.

Var. *Elaphis rubriceps*, *Dum. & Bibr.* p. 270.

Head uniform reddish brown, without spots.

m. Adult. N. America. Presented by Edward Doubleday, Esq.

n. Adult: head injured. North America. Presented by the College of Surgeons.

## 6. C<sup>OLUBER</sup> S<sup>PILOIDES</sup>.

*Elaphis spiloides*, *Dum. & Bibr.* p. 269.

Scales in twenty-five rows, those on the back strongly keeled; anal bifid; upper labials eight, fourth and fifth coming into the orbit. Reddish brown: on the vertebral line a series of large subquadrangular dark spots; head uniform brown, without streak; belly anteriorly dull yellowish, posteriorly marbled with brown.

a. Adult. New York. From Paris.

b. Skin, in spirit, 5' long. North America.



# 7. COLUBER EXIMIUS.

Le Triangle, *Lacép. Quadr. Ovip. Serp.* ii. p. 331. *Coluber eximius*, *Dekay, New York Fauna, Rept.* pl. 12. f. 25; *Harl. Journ. Acad. Nat. Sc. Philad.* 1827, p. 360, and *Med. Phys. Res.* 1835, p. 123; *Storer, Rep.* p. 227; *Holbr. N. Amer. Herpet.* iii. pl. 15. *Coluber guttatus*, *Schleg. Ess.* ii. p. 168, part. descr. *Pseudoelaps Y*, *Berth. Abh. Wiss. Gött.* 1843, t. 1. f. 11, 12. *Ophibolus eximius* and *O. clericus*, *Baird & Girard, Catal.* pp. 87, 88. *Ablabes triangulum*, *Dum. & Bibr.* p. 315.

Body and tail rather stout. Scales smooth, in twenty-one rows; upper labials seven, third and fourth coming into the orbit; anal entire. Above yellowish grey, with three series of brown rounded blotches, dorsal ones largest; beneath checkered with black.

a. Adult. North America.

b. Half-grown: injured. North America. Presented by Dr. Jacob Green.

c. Young. North America. Presented by Edward Doubleday, Esq.

d, e. Half-grown. New York. Presented by Mr. J. Murray.

f. Young. Delaware. Presented by H. Doubleday, Esq.

g. Young. Delaware. Presented by H. Doubleday, Esq.

h. Adult. N. America. Presented by the Zoological Society.

# 8. COLUBER CONSPICILLATUS.

*Coluber conspicillatus*, *Boie, Isis*, 1826, p. 210; *Schleg. Ess.* ii. p. 171, and *Faun. Japon. Rept.* pl. 3. *Elaphis conspicillatus*, *Dum. & Bibr.* p. 285.

Body and tail moderate, slightly compressed. Scales in twenty-one rows, with very weak keels; upper labials seven, third and fourth coming into the orbit; anal bifid. Above olive, with short, narrow, black cross bars; muzzle with a black cross band, a second between the eyes, extending to the lip, and an arrow-shaped mark behind; belly checkered with black.

a. Adult. Japan. From the Leyden Museum.

b. Half-grown. Japan. From the Leyden Museum.

# 9. COLUBER MANDARINUS.

*Coluber mandarinus*, *Cantor, Ann. & Mag. Nat. Hist.* 1842, p. 483.

Body and tail moderate. Scales in twenty-three rows (keels perhaps only in adult specimens conspicuous); upper labials eight, third and fourth coming into the orbit; anal bifid. Scarlet

above (in spirits whitish); a dorsal series of large lozenge-shaped black, in the centre yellow, spots; on each side a row of irregular black marks; muzzle with a black cross band, and a broad second between the eyes, extending to the lip; an arrow-shaped mark behind; belly checkered with black. Closely allied to *C. conspicillatus*.

*a.* Half-grown. Chusan. From Dr. Cantor.

#### 10. COLUBER CALICEPHALUS.

*Coronella calicephala*, Gray, *Ann. & Mag. Nat. Hist.* 1853, p. 390.

Body and tail moderate, head narrow, muzzle elongate. Scales smooth, in nineteen rows; eight upper labials, fourth and fifth coming into the orbit; anal bifid. Above pale brown, with darker, very broad, black-edged cross bands; on each side of the posterior part of back a narrow, interrupted black streak, becoming gradually more conspicuous and broader behind; crown with a black streak from the centre of vertical along the suture of occipitals; a second from the back edge of eye to the first cross band; belly uniform whitish.

*a.* Adult. Khasya. Presented by Dr. J. Hooker.

#### 4. ELAPHIS, *Aldrovandi*.

Body and tail generally elongate and compressed; head moderate, with rounded muzzle and moderate rostral shield; one loreal, two anterior, and two posterior oculars (in *E. sauromates* sometimes more). Scales keeled. Teeth equal, smooth. Europe; Asia.

*Elaphis*, sp., *Compsosoma*, sp., *Dum. & Bibr.* vii. p. 243, 291. *Coluber*, sp., *Gmel. Syst. Nat.* p. 1106; *Latr. Rept.* iv. p. 52; *Daud. Rept.* vi. p. 266; *Shaw, Zool.* iii. p. 450, 541; *Cuv. Règne Anim.*; *Pall. Faun. Rosso-As.* iii. p. 42; *Merr. Tent.* p. 117, 133; *Boie, Isis*, 1827, p. 209, 536; *Schleg. Ess.* p. 125. *Tropidonotus*, sp., *Wagl. Syst. Amph.* p. 179; *Eichw. Fauna Caspio-Caucas.* p. 111. *Cœlopeltis*, sp., *Eichw. l. c.* p. 120.

#### 1. ELAPHIS DIONE.

*Coluber dione*, *Pallas, Itin.* ii. p. 717, and *Voy.* ii. p. 20, and *Zoogr.* iii. p. 39, 40; *Gm. Syst. Nat.* i. p. 1106; *Shaw, Zool.* iii. p. 541; *Merr. Tent.* p. 133; *Schleg. Ess.* ii. p. 124; *Lacép. Quadr. Ovip. Serp.* ii. p. 244; *Latr. Rept.* iv. p. 159; *Daud.*

*Rept.* vi. p. 339. *Coluber eremita*, *Eichw. Zool. Spec.* iii. p. 174. *Coluber trabalis*, *Schleg. l. c.* p. 167. *Coluber mæoticus*, (*Pall.*) *Rathke, Acad. de St. Pétersb.* iii. p. 433. *Coluber pœcilocephalus*, *Brandt, Revue Zool. de Guérin-Ménéville*, iii. p. 302. *Cœlopeltis dione*, *Eichw. Fauna Caspio-Caucas.* pl. 28. *Elaphis dione*, *Dum. & Bibr.* p. 248.

Scales in twenty-five rows, those on the back weakly keeled; anal bifid; eight upper labials, the fourth and fifth coming into the orbit, the fifth forming only a small part of the hinder edge of orbit (cf. *Zamenis caudælineatus*). Coloration liable to great variation. Greyish or brown, either with three series of darker irregular spots (as in our specimens) or with paler longitudinal bands. Head always with symmetrical marks, a black streak from the back edge of eye to the angle of mouth; neck with two sometimes confluent brown spots.

a. Adult. Caucasus.

b. Adult. China? Presented by Captain Sir Edward Belcher.

## 2. ELAPHIS SAUROMATES.

*Coluber sauromates*, *Pallas, Zoogr. Rosso-Asiat.* iii. p. 42; *Eichw. Zool. Spec.* iii. p. 174; *Nordm. Voy. Russ. Mérid. par A. Demidoff, Rept.* pl. 7 (probably with anomalous head shields). *Elaphis pareysii*, *Fitz. in Wagler's Icones*, t. 25. *Tropidonotus sauromates*, *Eichw. Fauna Caspio-Caucas.* pl. 25. f. 1, 2. *Elaphis sauromates*, *Dum. & Bibr.* p. 288.

Scales in twenty-three rows, strongly keeled; anal bifid. Two or three anterior, two posterior oculars; yellowish brown with indistinct, irregular, black cross bands; ventral plates whitish, black-edged.

a. Adult. Ningpo, China. From Mr. Cuming's Collection.

Our specimen agrees pretty well with the description and figure in *Wagler's Icones*, but it differs in having only eight upper labials, the third and fourth coming into the orbit, and in having no temple-streak.

## 3. ELAPHIS QUATERRADIATUS.

*Elaphis cervone*, *Aldrovandi, Serp. Drac. Hist.* p. 267; *Lacép. Quadr. Ovip. Serp.* ii. p. 163; *Bonnat. Ophiol.* p. 44. *Coluber quaterradiatus*, *Gmel. in Naturf.* x. pl. 3. f. 1; *Schleg. Ess.* pl. 6. f. 9, 10. *Coluber quadrilineatus*, *Latr. Rept.* iv. p. 52; *Daud. Rept.* vi. p. 266. *Coluber elaphis*, *Shaw, Zool.* iii. p. 450; *Cuv.*

*Règne Anim.*; *Merr. Tent.* p. 117; *Risso, Hist. Nat. Eur. MÉR.* iii. p. 89; *Boie, Isis*, 1827, p. 536; *Lenz, Schlangenkunde*, p. 520. *Tropidonotus elaphis*, *Wagl. Syst. Amph.* p. 179. *Natrix elaphis*, *Bonap. Faun. Ital.* pl. . *Elaphis quateradiatus*, *Dum. & Bibr.* vii. p. 254.

Scales in twenty-three or twenty-five rows, those on the back strongly keeled; anal bifid. Reddish brown: on each side from the neck to the middle of tail, two black stripes; a very distinct black streak from the back edge of eye to the angle of mouth.

a. Adult. Europe. Presented by J. Cross, Esq.

b. Adult: head injured. Italy. Presented by J. J. Bianconi.

c. Adult. Europe. Presented by the College of Surgeons.

d. Adult: bleached. Europe.

#### 4. ELAPHIS QUADRIVIRGATUS.

*Coluber quadrivirgatus*, *Boie, Isis*, 1827, p. 209; *Schleg. Ess.* pl. 5. f. 15, 16, and *Faun. Japon.* t. 84. f. 1. *Compsosoma quadrivirgatum*, *Dum. & Bibr.* p. 301.

Scales in nineteen rows; upper labials eight, fourth and fifth coming into the orbit. Coloration:—

A. Either uniform black.

a. Adult. Japan. From the Leyden Museum (anal entire).

B. Or dark brown, with four obsolete lighter longitudinal stripes.

b. Adult. Japan. From the Leyden Museum (anal bifid).

C. Or lighter, with four obsolete dark longitudinal stripes.

c. Adult. Japan. From the Leyden Museum (as *C. virgatus*: anal bifid).

#### 5. ELAPHIS VIRGATUS.

*Coluber virgatus*, *Schleg. Ess.* ii. p. 145, and *Fauna Japon. Rept.* pl. 2. *Elaphis virgatus*, *Dum. & Bibr.* p. 261.

Scales in twenty-three (twenty-five) rows; anal bifid; eight upper labials, fourth and fifth coming into the orbit. Adult nearly uniform olive, with a darker temple-streak, and an obsolete whitish line along the edges of abdomen.

a. Adult. Japan. From the Leyden Museum.

b. Half-grown. Japan. From the Leyden Museum.



- c. Young. Chikiang (China). From Mr. Fortune's Collection. Scales in twenty-five rows; temple-streak black; back with brown transverse lines; sides of the hinder part of body and tail dark brown, separated from belly by a yellow band; sides of ventral plates black.

## 6. ELAPHIS SUBRADIATUS.

*Coluber subradiatus*, *Schleg. Ess.* ii. p. 136, and *Abbildg.* t. 28. f. 7, 8, t. 29. *Compsosoma subradiatum*, *Dum. & Bibr.* vii. p. 297.

Body elongate, compressed. Scales keeled, in twenty-three (twenty-one) rows; anal entire. Reddish brown: no occipital streak; a short black streak behind the eye; an interrupted series of elongate black blotches from the side of neck along the side of abdomen. Above with four longitudinal black lines, becoming indistinct towards the middle of trunk.

a. Adult. Timor.

b. Nearly half-grown. Philippine Islands. From Mr. Cuming's Collection. Scales in twenty-one rows.

## 5. CYNOPHIS, Gray.

Body slender, compressed; head narrow, with much elongate muzzle. Shields of crown regular; upper labials nine to ten; one loreal, one large anterior, two posterior oculars; nostril between two shields; eye moderate. Scales small, rhomboid, in twenty-one to twenty-seven rows, those of the back slightly keeled; anal entire. Teeth numerous, equal, smooth; pterygo-palatine teeth bent inwards.

*Plagiodontiens*, *Dum. & Bibr.* vii. p. 169. *Cynophis*, *Gray, Ann. & Mag. Nat. Hist.* 1849, p. 246. *Herpetodryas*, sp., *Schleg. Ess.* ii. p. 192. *Coluber*, sp., *auct. prior.*

### 1. CYNOPHIS HELENA.

*Russell, Ind. Serp.* i. t. 32 (head bad). *Coluber helena*, *Daud. Rept.* vi. p. 277; *Merr. Tent.* p. 104; *Boie, Isis*, 1827, p. 537. *Herpetodryas helena*, *Schleg. Ess.* ii. p. 192. *Cynophis bistrigatus*, *Gray, l. c.* *Plagiodon helena*, *Dum. & Bibr.* p. 170 (dentition: *Mém. de l'Inst. Acad. des Sc.* 1853, pl. 1. f. 6, and *Gen. Erpét.* pl. 76. f. 2).

Scales in twenty-seven rows; upper labials nine, the fifth and sixth coming into the orbit; sometimes the fourth divided into two, the eye then being over the suture of the sixth and seventh.

On the side of the anterior part of body a series of large black spots (sometimes with a white centre), continued from the middle of trunk to the tip of tail as a broad brown longitudinal band.

- a. Adult. Ceylon. Presented by R. Templeton, Esq.
- b. Adult: not good state. Ceylon. Presented by R. Templeton, Esq.
- c. Half-grown. Ceylon. From Mr. Cuming's Collection.
- d. Half-grown. Ceylon. Presented by A. Paul, Esq.
- e. Young. Ceylon. From Mr. Cuming's Collection.
- f. Adult. Madras. Presented by Walter Elliott, Esq.
- g. Adult. India. Presented by the Zoological Society.
- h. Adult: rather discoloured. India. Old Collection.
- i. Half-grown. India.
- k. Nearly half-grown. India.
- l. Young: bad state. India. From the Haslar Museum.

## 6. SPILOTES, *Wagler*.

Body and tail much elongate and compressed; head with rounded muzzle and moderate rostral shield; one loreal, one anterior, two or three posterior oculars. Scales keeled (in *Sp. corais* smooth). Teeth equal, smooth. South America; East Indies.

*Spilotes*, *Wagl. Syst. Amph.* p. 179; *Dum. & Bibr.* vii. p. 218. *Compsosoma*, sp., *Dum. & Bibr.* p. 291. *Coluber*, sp., *Linn. Mus. Ad. Fried.*; *Boie, Isis*, 1827, p. 536; *Schleg. Ess.* ii. p. 125. *Natrix*, sp., *Wagl. Serp. Bras.*

### 1. SPILOTES RADIATUS.

*Russell, Ind. Serp.* ii. t. 42. *Coluber radiatus*, *Reinw.*; *Boie, Isis*, 1827, p. 536; *Schleg. Ess.* t. 5. f. 5, 6; *Cantor, Catal.* p. 73. *Cœlognathus radiatus*, *Fitz. Syst.* p. 26. *Compsosoma radiatum*, *Dum. & Bibr.* vii. p. 292.

Body elongate, compressed. Scales in nineteen rows; anal entire; two posterior oculars. Above light brown, with four black longitudinal bands; a transverse black narrow streak across the occiput to the back edge of the eye, another broader from the eye to the angle of the mouth, and a third from the lower edge of the eye to the lip.

- a. Adult. India. Presented by Captain Stafford.
- b. Adult. Sikkim. Presented by Dr. J. Hooker.
- c. Half-grown. Khasya Hills. Presented by Dr. J. Hooker.

- d. Young. Mergui. Presented by Professor Oldham.
- e. Adult. Penang. Presented by General Hardwicke.
- f. Young: bad state. Penang. Presented by General Hardwicke. No occipital streak.
- g. Young. Penang. Presented by General Hardwicke.
- h. Adult: not good state. China. Presented by Mr. Reeve. No occipital streak.

## 2. SPILOTES MELANURUS.

*Coluber melanurus*, Schleg. Ess. pl. 5. f. 11, 12, and *Abbildg.* t. 5. *Composoma melanurum*, Dum. & Bibr. vii. p. 299.

Body elongate, compressed. Scales keeled, in nineteen or twenty-one rows; the sixth upper labial forming a part of the hinder margin of orbit; generally nine upper labials; two posterior oculars. Hinder part of trunk and tail uniform black; anterior part and head brown or dark brown; on each side of the neck a broad oblique black streak; on the anterior part of belly some large black lateral spots; streak and spots sometimes disappearing with age.—Young with a yellow vertebral band; two black streaks from the eye to the lip; no transverse occipital streak.

This species exhibits a great tendency to irregularity in the structure of the cephalic shields.

Var. A. Without spots or streaks.

- a. Adult. Philippine Islands. From Mr. Cuming's Collection.

Var. B. Black streaks on the neck, and black spots on the sides of belly.

- b. Adult. Philippine Islands. Purchased of Mr. Cuming.
- c. Half-grown. Philippine Islands. Purchased of Mr. Cuming.
- d. Adult. Celebes. From the Leyden Museum.
- e. Adult. Borneo. Presented by Dr. J. Hooker.
- f. Half-grown. Borneo. Presented by Dr. J. Hooker.
- g. Nearly half-grown. Borneo. Presented by Captain Sir E. Belcher.
- h. Adult. Borneo. From Mr. Lowe's Collection.
- i. Adult. Sumatra. From the Leyden Museum as *C. korros*.

Back with two very conspicuous black longitudinal bands.

- k. Half-grown: injured. Java.
- l. Half-grown: without epidermis. Singapore. Presented by General Hardwicke.
- m, n. Half-grown. Nepal. Presented by B. H. Hodgson, Esq. Some shields of head united, so as to form only six upper and four lower labial shields; no loreal.

- o.* Adult: head injured. Bengal. Presented by General Hardwicke.
- p.* Adult. India. From the Haslar Museum.
- q.* Young. India. Presented by the Zoological Society.

### 3. SPILOTES RETICULARIS.

*Coluber reticularis*, *Cantor, Proc. Zool. Soc.* 1839, p. 51.

Body compressed, rather elongate. Scales keeled, in nineteen rows; the fifth upper labial hardly reaching the hinder margin of orbit; eight upper labials; two posterior oculars. Blackish brown, behind black, with whitish cross bands, on the anterior part of body less conspicuous than on the posterior, and sometimes forming only netted spots; belly yellowish, spotted or marbled with black, sometimes uniform black; sometimes with two pale longitudinal lines on each side of back.

There is the strongest resemblance between this species and *S. melanurus* as to the structure of the cephalic shields, having the same tendency to the same irregularities; but they differ constantly in the form of the fifth upper labial, which circumstance, together with the coloration, has warned us against uniting both species. Moreover *S. reticularis* does not appear to grow to the same length as *S. melanurus*.

- a.* Adult. Khasya. Presented by Dr. J. Hooker, F.R.S.
- b.* Adult. Khasya. Presented by Dr. J. Hooker, F.R.S.
- c.* Adult: head injured. Khasya. Presented by Dr. J. Hooker, F.R.S.
- d.* Adult. Sikkim; Himalaya. Presented by Dr. J. Hooker, F.R.S.
- e.* Half-grown. Sikkim; Himalaya. Presented by Dr. J. Hooker, F.R.S.
- f.* Half-grown: head injured. Sikkim; Himalaya. Presented by Dr. J. Hooker, F.R.S.

### 4. SPILOTES CORAIS.

*Coluber corais*, *Cuv.; Boie, Isis*, 1827, p. 537; *Schleg. Ess.* pl. 5. f. 9, 10, and *Abbildg.* pl. 28. f. 9-11 (skull). *Spilotes corais*, *Dum. & Bibr.* p. 222.

Uniform blackish ash, tail whitish. Young with darker cross bands. Scales in seventeen rows, smooth.

- a.* Adult. Para. From Mr. Stevens's Collection.
- b.* Adult. Caripe Para. Presented by J. P. G. Smith, Esq.
- c.* Adult. Pernambuco. Presented by J. P. G. Smith, Esq.



- d. Half-grown. Pernambuco. Presented by J. P. G. Smith, Esq.
- e. Young. Pernambuco. Presented by J. P. G. Smith, Esq.
- f. Adult. Demerara. From Mr. Snellgrove's Collection.
- g. Adult: male. Berbice.
- h. Adult. Trinidad.
- i. Adult. ———? Presented by the Zoological Society.

Var. 1. Tail black.

*Spilotes melanurus*, *Dum. & Bibr.* p. 224.

- k. Adult. New Orleans. From Mr. Cuming's Collection.
- l. Young: injured. Mexico. From Hugo Finck's Collection.

Var. 2. Uniform black.

- m. Adult: injured. Mexico. From Hugo Finck's Collection.
- n. Half-grown. Mexico. From Hugo Finck's Collection.

Var. 3. Blackish ash, with whitish cross bands.

- o-q. Half-grown: not good state. Mexico. From Hugo Finck's Collection.
- r. Young. Mexico. From Hugo Finck's Collection.

## 5. SPILOTES VARIABILIS.

*Coluber novæ hispaniæ*, *Seba*, ii. 20. 1, & 105. 4; *Scheuchzer*, *Phys. Sacr.* t. 747. f. 3, & t. 662. f. 11. *Coluber pullatus*, *Linn. Mus. Ad. Fried.* t. 20. f. 3. *Cerastes mexicanus* and *C. coronatus*, *Laurenti*, *Synops. Rept.* p. 83. *Coluber mexicanus*, *Gmel. Syst. Nat.* p. 1088. *Coluber plutonius*, *Daud. Rept.* vi. p. 324; *Merr. Beitr.* t. 12. *Coluber caninana*, *Merr. Tent.* p. 121. *Coluber variabilis*, *Newwied, Beitr.* p. 271, 276, and *Abbildg.* t. 14. f. 3-6; *Boie, Isis*, 1827, p. 537. *Spilotes pullatus*, *Wagl. Syst. Amph.* p. 179; *Fitz. Syst. Rept.* p. 26; *Schleg. Ess.* t. 6. f. 1, 2. *Spilotes variabilis*, *Dum. & Bibr.* vii. p. 220.

Body compressed, slender. Scales with a strong keel in fifteen rows; two posterior oculars. Above with alternating black and white or yellow, oblique, irregular cross bands; head above black with white spots, or white with black spots; labial shields always black-edged; beneath white, with a few black transverse streaks.

### A. White colour predominant.

- a. Adult. Mexico. From Mr. Warwick's Collection.
- b. Adult. Mexico. Presented by the Zoological Society.
- c. Adult: bleached. ———?

- d. Half-grown. N. America. From Mr. Cuming's Collection.  
 e. Half-grown. Mexico. From M. Sallé's Collection.

B. Black colour predominant.

- f. Adult. North America.  
 g. Adult. Mexico. From Hugo Finck's Collection.  
 h. Adult. Barbice.  
 i. Adult. North America.  
 k. Half-grown. Brazil.  
 l. Half-grown. Brazil. Presented by Edward Cook, Esq., R.A.  
 m. Young. Interior of Brazil. From Dr. Gardiner's Collection.  
 n. Young. North America. From the Haslar Museum.

#### 6. SPILOTES PÆCILOSTOMA.

*Coluber pæcilostoma*, Wied, *Beitr.* p. 251; *Abbildg.* x. t. 1, 2.  
*Thamnobius pæcilostomus*, Fitz. *Syst. Rept.* p. 26. *Natrix sulphurea*, Wagl. & Spix, *Serp. Bras.* t. 9 (the Caninana); *Schleg. Ess.* t. 6. f. 5, 6. *Spilotes pæcilostoma*, Dum. & Bibr. vii. p. 221.

Scales keeled, large, in twenty-one rows; three posterior oculars. Colour variable, yellowish or olive or brown, with more or less distinct, darker, irregular, oblique cross bands; keels strong, forming together longitudinal brown lines.

- a. Adult: bleached. North America.

A. *Male*. Lips, chin, and front of belly yellow.

- b. Adult. Brazils. Presented by Lord Stuart.  
 c. Half-grown. North America. From the Collection of the Zoological Society.

B. *Female*. Lips, chin, and front of belly reddish brown.

- d. Adult: injured. Demerara. From Mr. Snellgrove's Collection.  
 e. Adult. North America. Presented by the Zoological Society.

#### 7. SPILOTES PÆCILONOTUS.

Scales in twenty-one or twenty-three rows, those of the back keeled; two posterior oculars. Above uniform brown, some scales of the medial row yellow with black tip; head yellowish, variegated with brown; belly anteriorly uniform yellowish, posteriorly uniform black.

- a. Adult. Honduras.  
 b. Adult. Mexico. From Hugo Finck's Collection.

*Description*.—Body elongate, compressed; tail slender; head moderate, rounded in front, distinct from neck; eye large; mouth

deeply cleft. Rostral shield much broader than high, very obtuse above, just reaching the surface of head; anterior frontals short, much broader behind than in front; posterior ones much larger; vertical five-sided, very broad in front, with an obtuse angle behind, and convergent, very concave lateral edges; superciliaries posteriorly very broad; occipitals short, small, obtuse behind. Anterior ocular large, raised on the surface of head, but not reaching the vertical; two posterior oculars; one loreal; two large nasals, nostril between; nine upper labials, fourth, fifth and sixth forming the lower edge of orbit; scales in twenty-one or twenty-three rows, those of the dorsal rows keeled; keels of the three medial rows excessively strong. Scales rather elongate, much imbricate, especially on the neck; ventral plates raised on the sides; anal entire. Above uniform brown, except some scales of the medial row, which are yellow with black tip; head yellow and brown variegated; belly anteriorly uniform yellowish, ventral plates black-edged about the middle of body, posteriorly entirely black. Length of cleft of mouth  $1\frac{3}{8}$ "; length of tail 18"; total length 5' 3".

## 7. ZAMENIS, Wagler.

Body and tail elongate, rounded, sometimes very slender; head with flat crown, rounded muzzle and moderate rostral shield; shields of head have a tendency to divide in two and more pieces. Loreal entire, or divided; generally two anterior and two posterior oculars; eye sometimes surrounded by separated pieces of the upper labials. Scales smooth or slightly keeled. Posterior maxillary tooth longest, not grooved, anterior ones equal in length. From the shores of the Mediterranean through the whole continent of Asia.

Zamenis and Periops, *Wagler, Nat. Syst. Amph.* pp. 188, 189; *Dum. & Bibr.* vii. pp. 674, 683. Coluber, sp., *Linn. Syst. Nat.* i. p. 389; *Laurenti, Syn.* p. 77; *Lacép. Quadr. Ovip. Serp.* p. 320; *Latr. Rept.* iv. p. 88, &c.; *Daud. Rept.* vi. viii.; *Merr. Tent.* p. 105; *Pall. Zoogr. Rosso-As.* p. 42; *Shaw, Zool.* p. 518; *Gray, Ind. Zool.*; *Eichw. Faun. Caspio-Caucas.* p. 113; *Bonap. Amph. Eur.* p. 46, and *Faun. Ital.*; *Schleg. Ess.* ii. p. 525. Psammophis, sp., *Schleg. l. c.* p. 215. Tyria, sp., *Fitz. Neue Class.* p. 60; *Eichw. Faun. Caspio-Caucas.*; *Bonap. Faun. Ital.* Natrix, sp., *Boie, Isis*, 1827, p. 537; *Wagl. Nov. Serp. Bras. Hæmorrhais, Boie, l. c.* p. 538.

## 1. ZAMENIS ATROVIRENS.

*Anguis Æsculapii niger, Aldrovandi, Serp. lib. i. cap. xvi.* p. 263; *Lacép. Hist. Nat. Quadr. Ovip. Serp.* ii. pl. 6. f. 1; *Bonnat.*



*Ophiol.* p. 28; *Latr. Rept.* iv. p. 88; *Daud. Rept.* vi. p. 292. *Coluber atrovirens*, *Shaw, Zool.* iii. p. 449; *Cuv. Règne Anim.*; *Merr. Tent.* p. 110. *Coluber luteostriatus*, *Gmel. Naturforscher*, xxvii. t. 3. f. 4. *Coluber personatus*, *Daud. Rept.* viii. p. 324 (young). *Coluber viridiflavus*, *Boie, Isis*, 1827, p. 536; *Bonap. Faun. Ital.* pl. ; *Schleg. Ess.* ii. pl. 4. f. 11, 12. *Zamenis viridiflavus*, *Wagl. Syst. Amph.* p. 188; *Dum. & Bibr.* vii. p. 686.

Habit moderately slender. Above dark olive, each scale with a lighter or yellow streak; crown of head generally yellow-spotted, and with a narrow yellow transverse streak, uniform in some specimens of the varieties. Scales smooth, in nineteen rows; upper labials eight, the fourth and fifth touching the eye; anterior oculars two, posterior two. (See *Ablabes modesta*.)

- a-d.* Adult. *e.* Young. Bononia. Presented by J. J. Bianconi.
- f.* Half-grown. Dalmatia. Presented by Dr. Heckel.
- g.* Adult. Turin. Presented by Professor Bonelli.
- h, i.* Half-grown. Rome. Presented by Sir W. C. Trevelyan.
- k, l.* Young. Sardinia. Presented by Professor Bonelli.
- m.* Adult. Algiers. From Paris as *Z. hippocrepis*.
- n.* Adult. South Europe.
- o.* Adult. South Europe.
- p.* Adult. South Europe.
- q.* Adult. South Europe. Presented by the Zoological Society.
- r.* Young. South Europe.

Var. A. *Coluber carbonarius*, *Schreibers*; *Bonap. Amph. Eur.* p. 51. Dark brown with hardly visible streaks, or uniform black.

*s.* Adult. Naples. Presented by J. J. Bianconi.

Var. B. *Coluber caspius*, *Iwan, Voy. en Russ.* i. p. 317. pl. 21; *Gmel. Syst. Nat.* i. p. 1112; *Nordmann in Voy. en Russie par Demidoff, Rept.* pl. 5; *Eichw. Faun. Caspio-Caucas.* p. 113. *Coluber trabalis*, *Pall. Zoogr. Rosso-As.* iii. p. 42. *Hæmorrhoids trabalis*, *Boie, Isis*, 1827, p. 538. *Zamenis trabalis*, *Dum. & Bibr.* vii. p. 689.

It was only after long deliberation, and a close examination of the specimens in the British Museum collection, that we came to the conclusion of the necessity of uniting this form with *Z. atrovirens*. But on comparing the descriptions of Pallas, Duméril, &c., we were not able to find any *true* specific character by which the species can be properly distinguished, or which may be equally applied to several specimens. We may add, that the specimen *u* perfectly agrees with the figure given by Nordmann, as to the structure of shields and the coloration.

Olive, each scale with a lighter streak, forming together paler



longitudinal lines; head with or without a paler streak between the eyes.

*t.* Adult. Greece.

*u.* Adult male. South Europe. From the Haslar Museum.

*v.* Adult. South Europe.

*w.* Young. Shores of Mediterranean. Presented by the Rev. W. Hennah.

*x.* Adult. Xanthus (Dr. Armstrong). From the Haslar Museum.

*y.* Young: bad state. South Europe. Presented by Sir J. Macgrigor.

In the specimens *v*, *w*, *x*, some scales on the anterior part of the body have black outer edges, forming markings like ||; *v*, *w*, have a yellowish cross streak between the eyes, and completely agree one with the other; they come very probably also from the coast of Asia Minor. Belly in *x* has small roundish black spots; tail beneath with a blackish medial band.

## 2. ZAMENIS HIPPOCREPIS.

*Coluber hippocrepis*, *Linn. Mus. Ad. Fried.* t. 16. f. 2 (young), and *Syst. Nat.* p. 388; *Laur. Syn.* p. 77; *Shaw, Zool.* iii. p. 518; *Merr. Tent.* p. 105; *Bonap. Amph. Eur.* p. 46, and *Faun. Ital.*; *Schleg. Ess.* pl. 6. f. 15, 16. *Coluber domesticus*, *Linn. Syst. Nat.* p. 389; *Daud. Rept.* vi. p. 242; *Shaw, l. c.* p. 520; *Lacép. Quadr. Ovip. Serp.* ii. p. 320; *Latr. Rept.* iv. p. 130; *Daud. l. c.* p. 249; *Geoffroy, Descript. Eg. Rept.* pl. 4. f. 3. *Natrix bahiensis*, *Wagl. & Spix, Serp. Bras.* t. 10. f. 2; *Boie, Isis*, 1827, p. 537. *Periops hippocrepis*, *Wagl. Syst. Amph.* p. 189, and *Icon.* t. 6. *Dum. & Bibr.* vii. p. 675.

Lower edge of orbit surrounded by a series of scale-like shields; anal bifid. Scales smooth, in twenty-five or twenty-seven rows. Brownish yellow, with three series of large rounded or quadrilateral dark spots.

*a.* Adult. South Europe. Presented by the Zoological Society.

*b.* Adult: injured. Spain. Presented by A. Christy, Esq.

*c.* Young: head injured. Portugal. Presented by Dr. A. Farre.

*d.* Adult: not good state. Gibraltar. Presented by the College of Surgeons.

*e.* Adult. Tangiers. From Mr. Fraser's Collection.

*f.* Young. Tunis. From Mr. Fraser's Collection.

*g.* Adult. North Africa.

*h.* Half-grown. North Africa.

*i.* Adult: head injured. South Europe. From the Haslar Museum.

*k.* Adult. South Europe. From the Haslar Museum.

*l.* Half-grown. South Europe. Mus. Leach.

*m.* Nearly half-grown. S. Europe. From the Haslar Museum.

*n.* Young. South Europe. From the Warwick Museum. One upper labial coming into the orbit.

*Nova species? young individuals of a variety?* One or two upper labials coming into the orbit. Scales in twenty-three rows, along the middle convex (keeled?). Anal bifid. Ground-colour greenish grey, spotted like the type.

*o.* 14" long. Xanthus. Presented by Sir C. Fellows.

*p.* 11" long. Xanthus. From the Haslar Collection.

### 3. ZAMENIS CLIFFORDII.

Couleuvre à raies parallèles, *Geoffroy, Descr. de l'Eg.* pl. 8. f. 1, 1 *a.* *Coluber cliffordii, Schleg. Ess.* pl. 6. f. 13, 14. *Periops (Wagl.) parallelus, Dum. & Bibr.* p. 678.

Lower edge of orbit surrounded by a series of scale-like shields; anal entire. Scales on the hinder part of body keeled; shields of head sometimes divided. Brownish yellow, with three series of large subquadrangular dark spots, the lateral ones sometimes margined with two parallel black longitudinal streaks.

*a.* Adult. Egypt. Presented by J. Wilkinson, Esq.

*b.* Adult: bad state. Egypt. Presented by J. Wilkinson, Esq.

*c, d.* Half-grown and young. Egypt. Presented by J. Burton, Esq.

*e.* Adult: discoloured. Tripoli. Presented by J. Ritchie, Esq.

*f.* Adult. West Africa. Presented by the Zoological Society.

*g.* Half-grown. West Africa.

*h.* Young. West Africa.

### 4. ZAMENIS CAUDÆLINEATUS.

Habit moderate. Dull yellowish, with five series of brown spots, the three middle ones forming three black streaks on the tail; spots of the dorsal series largest, forming in younger individuals a zigzag band; spots of the outer rows less conspicuous. Head with symmetrical marks. Scales keeled, in twenty-one (twenty-three) rows; three anterior, two posterior oculars; *occipitals behind rounded, obtusely forked; no larger scale behind; sixth upper labial forming the third part of hinder edge of orbit (see Elaphis dione).*

*a-c.* Adult. Schiraz; Kurdistan. From Mr. Parreys's Collection.

*d, e.* Adult and young. Schiraz; Kurdistan. From Mr. Parreys's Collection.

*f.* Adult: injured. (? Egypt; Burton).

*Description.*—Habit moderate; head rather broad, flat above, with blunt, rounded muzzle; eye moderate. Rostral shield large, spheroid, seven-sided, obtuse-angled above, reaching the surface of crown; anterior frontals moderate, broader than long; posterior frontals not much larger, sometimes united, bent on the sides; vertical very broad in front, with much convergent and concave outer edges, and a right angle behind; occipitals moderate, irregularly rounded behind, no larger scale behind the occipital; superciliary large, with semicircular inner edge, prominent above the eye; three anterior oculars, sometimes a supernumerary fourth; uppermost largest, before the eye grooved, with a prominent ridge, raised on the surface of crown and reaching the vertical. Two moderate posterior oculars; one (two) loreal; two large nasals, nostril between; nine upper labials, sometimes seventh divided into two, fifth and sixth coming into the orbit, sixth high, and forming the third part of hinder edge of orbit; in one specimen the hinder process of the sixth upper labial is separated, forming a third posterior ocular; temporals small, scale-like. Scales rather elongate, in twenty-one (twenty-three) rows, those of the back obscurely keeled; anal bifid. Posterior maxillary tooth longest, and separated from the anterior ones by an interval. Above and beneath dull yellowish, with a dorsal brown zigzag line, very conspicuous in younger individuals; older ones exhibit a series of oblique rounded or lozenge-shaped spots, always confluent towards the tail, and forming on the tail a straight, tapering, medial line; along each side a series of brown or black smaller spots, alternating with former, confluent towards the tail, and forming a straight, black lateral line. On the sides of belly a third, less conspicuous row of spots, alternating with those of the second row; remainder of belly uniform. Head with symmetrical brown marks, sometimes uniform: a cross band on the forehead, a pair of spots between the eyes, a second on the sutures of vertical with occipitals, a third pair of streak-like spots on the occipitals; a dark, short, oblique streak beneath the eye, a second longer one from the back edge of eye to the angle of mouth. Length of cleft of mouth  $\frac{5}{4}$ ''; length of tail 13''; total length 4' 10''.

##### 5. ZAMENIS VENTRIMACULATUS.

Habit very slender, moderate in females. Olive, with dark cross bands, more conspicuous on the anterior part of body; crown of head uniform, or with dark cross bands; under the eye an obsolete dark spot. Scales smooth, in nineteen or twenty-one rows; upper labials nine, fifth and sixth coming into the orbit; two anterior and two posterior oculars; *occipitals behind not*



*rounded or pointed, forming together a straight line, rectangular to the medial suture; a pair of larger rounded scales behind.*

Var. A. *Coluber ventrimaculatus*, Gray, *Ind. Zool.* 1832, pl. . f. 1. The specimen figured by Dr. Gray is a pregnant female. *Coluber chesneii*, Martin, *Proc. Zool. Soc.* 1838, p. 81.

Cross bands black, interrupted towards the side of back, and forming a vertebral series of transverse oblong and a lateral one of roundish spots, obsolete towards the tail; cross band between the eyes, spot under the eye and temple-streak black; form and structure of head-shields completely the same as in the next varieties.

a. Adult. Euphrates Expedition.

b. Adult: female. Bengal. Presented by General Hardwicke. Original specimen of Dr. Gray's figure, exhibiting evidently the keels of ventral plates.

c. Young. Bengal. Presented by General Hardwicke.

Var. B. Whitish, with large, black-edged, round brown spots; in older age the black edges may become confluent, forming simple black cross bars; or perhaps it is a species.

d-g. Half-grown and young. India. Presented by W. Masters, Esq.

Var. C. Olive, without cross bands; a broad rose-coloured band along the whole back; form and structure of head shields completely the same as in the following varieties.

h, i. Adult and half-grown. Schiraz; Kurdistan.

Var. D. *Couleuvre à bouquets*, Geoffr. *Descript. de l'Eg.* pl. 8. f. 1. *Coluber florulentus*, Schleg. *Ess.* ii. p. 166. *Zamenis florulentus*, Dum. & Bibr. p. 693. ? *Coluber nummifer*, Reuss, *Mus. Senck.*

Cross bands dark olive, some or all more or less continued on the sides of abdomen; crown sometimes with dark olive cross bands; temple-streak none; dark spot under the eye.

k-m. Adult and young. Egypt. Presented by J. Wilkinson, Esq.

n. Adult. Egypt. Presented by J. Wilkinson, Esq.

o. Adult: bad state. Egypt. Presented by J. Wilkinson, Esq.

p. Adult: bad state. Egypt. Presented by Mr. Burton.

q. Half-grown. Egypt. From the Collection of the Zoological Society.

r. Young. Egypt. Presented by Mr. Burton.

s. Young. Egypt. From Mr. Thornton's Collection.

t. Young. North Africa.



# 6. ZAMENIS DAHLII.

*Savigny, Descript. de l'Eg. Suppl. t. 4. f. 4. Tyria dahlui, Fitz. Neue Class. Rept. p. 60; Bonap. Faun. Ital. pl. . Coluber ocellatus, Ménériés. Tyria naiadum, Eichw. Faun. Caspio-Caucas. t. 27. Psammophis dahlui, Schleg. Ess. pl. 8. f. 12, 13. Zamenis dahlui, Dum. & Bibr. vii. p. 692.*

Habit very slender; above uniform greenish, without any streaks on the crown; on each side of the neck a series of large brown, yellow-edged round spots. Scales smooth, in nineteen rows; upper labials eight, the fourth and fifth shields touching the eye (sometimes the third is divided into two); occipital shields behind broad, rounded.

*a. Adult. Dalmatia. From the Leyden Museum.*

*b. Adult. Dalmatia. Presented by Dr. Heckel.*

*c. Adult. Dalmatia.*

*d, e. Adult. Xanthus. Presented by Sir Charles Fellows.*

*f. Adult. Xanthus. From the Haslar Museum.*

*g. Adult. North Africa. From Mr. Argent's Collection.*

*h. Adult. North Africa? greatly injured.*

*i. Adult. North Africa? From the Collection of the Zoological Society.*

The three last specimens uniform greenish above, without conspicuous spots on the neck.

# 8. CORYPHODON, Dum. & Bibr.

Body and tail generally elongate and compressed, sometimes very slender, sometimes moderate; head with flat crown, rounded muzzle and moderate rostral shield. Loreal entire or divided; anterior oculars one or two, posterior two or three. Scales elongate, rhomboid, in fourteen to nineteen rows (in one species in twenty-three). Maxillary teeth gradually larger and longer behind, smooth. East Indies; America; Africa.

*Coryphodon, Dum. & Bibr. vii. p. 178. Natrrix, sp., Coluber, sp., auct. prior.*

## 1. CORYPHODON PANTHERINUS.

*Merrem, Beitr. ii. t. 11. Panthérine, Daud. Hist. d. Rept. vi. p. 318. Coluber compressus, Hermann, Observ. Zool. p. 285; Merr. Tent. pp. 102 & 107. Coluber capistratus, Licht. Catal. p. 104. Natrrix scurrula, Spix, Serp. Brasil. pl. 8. Coluber lichtensteinii, Wied, Nova Act. xii. pl. 46, and Abbildg. pl. 15. f. 1; Beitr. p. 305; Wagler, Descript. et Icones, fasc. i. t. 4; Boie, Isis, 1827, p. 537; Schleg. Ess. t. 5. f. 13, 14. Coryphodon pantherinus, Dum. & Bibr. vii. p. 181.*

Pale brown, with darker, black-edged large spots, extending down on the paler belly. Scales smooth, in fifteen rows.

- a. Adult : very large specimen. Sine patria. From the Haslar Collection.
- b. Adult. Sine patria. From the Haslar Collection.
- c. Adult. Pernambuco.
- d. Adult. Pernambuco. Presented by J. P. G. Smith, Esq.
- e. Half-grown : injured. Pernambuco. Presented by J. P. G. Smith, Esq.
- f. Adult. Rio Janeiro. From the Haslar Collection.
- g. Adult. Brazils. Presented by J. S. Bowerbank, Esq.
- h. Half-grown. Brazils. Presented by Sir C. Stuart.
- i. Young : bad state. Para. Presented by J. P. G. Smith, Esq.
- k. Adult. Brazils. Presented by W. F. Evans, Esq.
- l. Young. Brazils. Presented by W. F. Evans, Esq.
- m. Adult : bad state. South America.
- n. Young. South America. From the Haslar Collection.
- o. Young. South America. From the Haslar Collection.

## 2. CORYPHODON CONSTRICTOR.

Black Snake, *Catesby, Hist. Nat. Carol.* ii. pl. 48, with fig. ; *Lacép. Hist. Nat. Serp.* ii. p. 309. *Coluber constrictor, Linn. Syst. Nat.* edit. xii., not edit. x. ; *Shaw, Gen. Zool.* p. 464 ; *Merr. Tent.* p. 108 ; *Latr. Hist. Nat. Rept.* iv. p. 178 ; *Daud. Hist. Nat. Rept.* vi. p. 402 ; *Schleg. Ess.* pl. 5. f. 3, 4. *Coluber flaviventris, Say, Exped. Rocky Mount.* pp. 167, 337 ; *Holbr. N. Amer. Herpet.* iii. pl. 2 (bad). *Bascanion constrictor, Baird & Girard, Catal.* p. 93. *Coryphodon constrictor, Dum. & Bibr.* vii. p. 183.

Above shining black, beneath blackish ash, throat whitish. Scales smooth, in seventeen rows ; posterior oculars two.

- a. Adult. New Orleans. From Mr. Cuming's Collection.
- b. Half-grown. St. Domingo. From M. Sallé's Collection.
- c. Adult : greatly injured. North America.
- d. Adult : not good state. North America. Presented by the College of Surgeons.

## 3. CORYPHODON TESTACEUS.

*Coluber testaceus, Say, in Long's Exped. Rocky Mount.* ii. p. 48 ; *Harlan, Journ. Acad. Nat. Sc. Philad.* v. 1827, p. 348, and *Med. & Phys. Res.* 1835, p. 113 ; *Holbr. N. Amer. Herpet.* iii. pl. 13. *Coluber constrictor, var., Schleg. Ess.* p. 133 ; *Baird & Girard, Catal.* p. 150.

Above pale sanguineous or testaceous, without any spot ; the

hinder part of the body and the tail salmon-coloured ; beneath sanguineous. Scales smooth, in seventeen rows ; posterior oculars two.

*a, b.* Adult. Texas. From Mr. Brandt's Collection. Both specimens as *Coluber erythrogaster*, Shaw.

*c.* Half-grown. Mexico. From H. Finck's Collection. With some obsolete black spots ; only fifteen rows of scales.

#### 4. CORYPHODON MARGARITIFERUS.

Above and beneath blackish olive ; each scale with a black centre and a pearl-coloured speck at the upper edge ; a darker collar. Scales smooth, in nineteen rows.

*a.* West Africa. From Mr. Rich's Collection.

*Description of the specimen.*—Habit like that of *Coronella austriaca* ; head moderate, with flat crown, rather obtuse snout and moderate eye. Rostral shield broader than high, just reaching the surface of head ; anterior frontals rather obtuse in front, broader behind ; posterior ones not much longer, bent down on the sides ; vertical five-sided, broad, but longer than broad, with a right angle behind ; occipitals moderate, rounded behind ; anterior ocular raised on the surface of crown, but not reaching the vertical ; two posterior oculars ; one square loreal ; two nasals, nostril between ; eight upper labials, fourth and fifth forming the lower edge of orbit ; one large temporal shield in contact with both hinder oculars, five smaller ones behind. Scales smooth, rhomboid, in nineteen rows ; anal bifid. Maxillary teeth gradually longer and larger behind, not grooved. Blackish olive, nearly black, each scale black at the base, with a minute pearl-coloured speck at the upper edge ; spots more conspicuous anteriorly ; neck with a broad, darker, lighter-edged collar. Lower jaw and throat yellowish, belly blackish olive. In the stomach I found a half-digested mouse. Length of cleft of mouth  $\frac{3}{8}$ " ; length of tail  $2\frac{3}{4}$ " ; total length 15".

#### 5. CORYPHODON FASCIOLATUS.

*Russell, Ind. Serp.* i. t. 21. *Coluber fasciolatus*, Shaw, Zool. p. 528 ; *Cantor, Catal.* p. 72.

Scales smooth, in twenty-three rows ; two anterior, two posterior oculars ; rostral rather protruding. Yellowish olive, with equidistant, narrow, white and brown variegated cross bands, more conspicuous on the anterior part of body ; beneath uniform yellowish.

*a.* Adult. Madras. Presented by J. C. Jerdon, Esq.



- b.* Half-grown. Madras. Presented by Walter Elliott, Esq.
- c.* Adult. Benares. Presented by Dr. Sayer.
- d.* Adult. East Indies. Original specimen of Dr. Russell.
- e.* Half-grown. East Indies. Presented by the Rev. Gerard E. Smith.
- f.* Largest specimen; 3' long. India. Presented by the Zoological Society.
- g.* Adult. India.—In *f* and *g*, rostral thick.
- h.* Half-grown. India.
- i.* Half-grown: injured. India. From Mr. Argent's Collection.
- k.* Adult: not good state. India. Presented by the College of Surgeons. (= *f*.)
- l.* Adult. India. From the Collection of the Zoological Society. (= *f*.)

#### 6. CORYPHODON HEXANOTUS.

*Coluber hexanotus*, Cantor, *Catal. of Malayan Rept.* p. 74.

Above nearly uniform dark brown. Scales smooth, in seventeen rows, those of the vertebral line larger, six-sided; posterior oculars three; only one upper labial reaching the orbit.

- a.* Adult. Borneo. Presented by Sir James Brooke.
- b.* Adult. Singapore. Presented by General Hardwicke.
- c.* Adult: without tail. Singapore. Presented by General Hardwicke.
- d.* Half-grown. Singapore. Presented by General Hardwicke.—On the anterior part of back a dark longitudinal zigzag line.

#### 7. CORYPHODON KORROS.

*Coluber korros*, Reinw.; *Schleg. Ess.* ii. p. 139, and *Abbildg.* t. 27, t. 28. f. 1–6. *Coluber cancellatus*, *Oppel, Mus. Paris*; *Boie, Isis*, 1827, p. 537. *Coryphodon korros*, *Dum. & Bibr.* vii. p. 186.

Olive: scales on the hinder part of body and on the tail black-edged. Scales smooth, in fifteen rows.

- a.* Adult. Hong Kong. Presented by J. C. Bowring, Esq.
- b.* Adult. China.
- c.* Half-grown. Mergui. Presented by Prof. Oldham as *Polepidotes lividus* (?); without intestines.
- d.* Adult. Penang. Presented by General Hardwicke.
- e.* Adult. Hong Kong. Presented by J. C. Bowring, Esq.
- f.* Adult. Sumatra. From the Leyden Museum.
- g.* Adult: injured. India. Presented by Captain Stafford.
- h.* Adult. Java? From Mr. Argent's Collection.



8. **CORYPHODON BLUMENBACHII.**

*Coluber mucosus*, *Linn. Mus. Ad. Fried.* t. 13. f. 2, t. 23. f. 2 (bad); *Boie, Isis*, 1827, p. 536. *Russell*, i. t. 34, ii. t. 18. f. 2, young; *Lacép. Quadr. Ovip.* ii. pl. 34; *Latr. Rept.* iv. p. 156; *Daud. Rept.* vi. p. 355. *Coluber blumenbachii*, *Merr. Tent.* p. 119; *Schleg. Ess.* pl. 5. f. 7, 8. *Coluber dhumna*, *Cantor, Proc. Zool. Soc.* 1839, and *Catal. of Malayan Rept.* p. 74. *Coryphodon blumenbachii*, *Dum. & Bibr.* vii. p. 184.

Olive: scales of the hinder part of body and of tail with black edges, forming sometimes more or less regular, narrow, transverse streaks. Scales of the back keeled, in seventeen rows.

- a. Adult. India. Colonel Cobbe's Collection.
- b. Adult. India. Colonel Cobbe's Collection.
- c. Adult. India. Colonel Cobbe's Collection.
- d. Adult: bad state. India. Presented by W. Masters, Esq.
- e. Adult: discoloured. India. Purchased.
- f. Half-grown: discoloured. India. Purchased.
- g. Half-grown. India.
- h. Half-grown. Ceylon. From Mr. Cuming's Collection.
- i. Young: bad state. Ceylon. Presented by R. Templeton, Esq.
- k. Young. Ceylon. From Mr. Cuming's Collection.
- l, m. Adult. Madras. Presented by J. C. Jerdon, Esq.
- n. Adult. Madras. Presented by J. C. Jerdon, Esq.
- o-q. Adult: bad state. Nepal. Presented by B. H. Hodgson, Esq.
- r, s. Young. Nepal. Presented by B. H. Hodgson, Esq.
- t. Large specimen. Calcutta. Presented by the Zoological Society.
- u. Half-grown: bad state. Bengal. Presented by W. Masters, Esq.
- v. Tail of a very large male. Penang. Presented by General Hardwicke.
- w. Adult: in fluid: bad state. China.
- x. Adult: bad state. China. Presented by Mr. Lindsey.
- y. Adult: bad state. East Indies. From the Haslar Collection.
- z. Adult. East Indies. From Mr. Argent's Collection.
- a. Adult: bad state. East Indies. Old Collection.
- β. Adult: rather discoloured. East Indies. Presented by the College of Surgeons.
- γ, δ. Half-grown. East Indies.
- ε. Half-grown: bad state. East Indies. From the Haslar Collection.
- η. Half-grown. East Indies.
- θ. Half-grown: not good state. East Indies.

- ι. Half-grown : not good state. East Indies. Presented by Dr. Packmann.
- κ. Young : not good state. East Indies.
- λ. Young. East Indies.
- μ. Young : bad state. East Indies. From the Haslar Collection.

## 9. CORYPHODON FUSCUS.

All the scales smooth, in fourteen or sixteen rows; upper labials nine.

- a. Ten feet long. Borneo.
- b. Nearly adult. Borneo. Presented by Capt. Sir E. Belcher.

*Description*.—Habit slender, similar to *Herpetodryas carinatus*; neck rather thin, head distinct; eye large; shields of crown regular; nostril rather large, between two shields; one to three loreals, as in *Cor. blumenbachii*; two anterior orbitals, the upper one largest, raised on the crown, not reaching the vertical; the inferior one small, elongate, situated in the anterior, inferior angle of eye; nine upper labials, the fifth and sixth forming the lower edge of eye, the seventh triangular, the eighth nearly twice as large as ninth; generally two posterior oculars, sometimes the hinder process of the sixth upper labial separated and forming a third post-orbital; two pairs of temporal shields. Scales of the dorsal and outer rows broad quadrangular, those on the sides more elongate, all perfectly smooth, and the longitudinal rows arranged in pairs; anal bifid. Back uniform brown, shining; belly uniform yellowish; from about the middle of body on each side a broad, first blackish, then black band, extending to the tip of tail; tail exactly one-fourth of total length.

*Coryphodon fuscus* is different from *Coluber dhumnna*, Cantor, Proc. Zool. Soc. 1839. We cannot think that he would only have considered a snake with scales, arranged in pairs, as "a variety of *Coluber blumenbachii* with uniformly smooth scales," as he considers the above species in his Catalogue of Malayan Reptiles, p. 74.

## 10. CORYPHODON CARINATUS.

*Coluber dhumnades*, Cantor, *Ann. & Mag. Nat. Hist.* 1842, p. 483, and *Catal. of Mal. Reptiles*, p. 74.

Scales in fourteen or sixteen rows, the dorsal of which are keeled; upper labials eight.

- a. Adult: 10' long. Borneo. Presented by Captain Sir Edward Belcher.
- b. Adult. Chusan. Presented by Dr. Cantor.

- c, d.* Adult. Khasya. Presented by Dr. Hooker.  
*e, f.* Adult: bad state. Sikkim. Presented by Dr. Hooker.  
*g.* Adult. Afghanistan.

*a, b,* present strong keels only on the pair of vertebral rows ;  
*c-g,* weaker keels on four dorsal rows.

### Fam. V. DRYADIDÆ.

Body generally elongate, not much compressed (except in a few species) ; tail proportionally elongate, slender, not distinct from trunk, tapering ; head moderate, or with elongate muzzle, distinct from neck ; shields of head regular, posterior frontals truncated behind, loreal sometimes wanting ; generally one anterior and two posterior oculars ; scales elongate, lanceolate ; subcaudals two-rowed ; eye rather large, pupil round.

No longer tooth in front, or in the middle of the maxillary bone.

Herpetodryas, *Schlegel, Ess. ii. p. 173.* Isodontiens, part., Dromicus, Dryophylax, *Dum. & Bibr.*

#### *Synopsis of the Genera.*

1. HERPETODRYAS. Body not much compressed ; two nasals ; teeth equal, smooth. America.
2. CYCLOPHIS. Body rounded ; one nasal ; teeth equal, smooth. North America ; East Indies.
3. DRYOCALAMUS. Body much compressed ; one nasal ; teeth equal, smooth.
4. GONYOSOMA. Body much compressed ; two nasals ; teeth equal, smooth. East Indies.
5. PHILODRYAS. Hinder maxillary teeth grooved. South America ; Madagascar.
6. DROMICUS. Hinder maxillary tooth longest, not grooved, separated by an interspace. West Indies ; South America.

#### 1. HERPETODRYAS, *Boie.*

Teeth equal in length, none grooved. Body generally very slender, rounded or slightly compressed ; head elongate, with flat crown, distinct from neck ; one loreal ; two nasals ; one anterior, two posterior oculars. Scales elongate, in not more than nineteen rows. Eye large. Warmer parts of America.

Herpetodryas, *Boie, Isis, 1827 ; Wagl. Syst. Amph. p. 180 ;*

*Dum. & Bibr.* vii. p. 203. *Psammophis*, sp., *Holbr. l. c.* p. ii; *Hallow. Journ. Acad. Nat. Sc. Philad.* 1852, p. 178. *Herpetodryas*, sp., *Schleg. Ess.* ii. p. 173. *Macrops*, *Wagl. l. c.* p. 182. *Coronella*, sp., *Boie, l. c.* p. 539.

# 1. HERPETODRYAS FUSCUS.

*Coluber fuscus*, *Linn. Mus. Ad. Fried.* t. 17. f. 1. *Coluber saturninus*, *Linn. l. c.* t. 9. f. 1. *Coluber subfuscus*, *Lacép. Quadr. Ovip.* ii. p. 229. *Natrix saturnina*, *Laur. Rept.* p. 77; *Shaw, Gen. Zool.* iii. p. 498. *Coluber lævicollis*, *Wied, Beitr.* p. 296. *Macrops saturninus*, *Wagl. Syst. Amph.* p. 182. *Herpetodryas carinatus*, var., *Schleg. Ess.* t. 7. f. 3, 4 (not f. 1, 2). *Herpetodryas fuscus*, *Dum. & Bibr.* vii. p. 209.

All the scales smooth, in ten or twelve rows.

- a. Very large specimen: 8' long; circumference of body  $5\frac{1}{2}$ ".  
Female. British Guiana? Presented by Sir R. Schomburgk.
- b. Adult: greatly injured. Para. Presented by R. Graham, Esq.
- c. Adult: injured. Rio Janeiro. Presented by A. Fry, Esq.
- d. Adult. Brazils.
- e. Adult: injured. Brazils. Presented by Lord Stuart.
- f. Half-grown: head injured. Berbice. Presented by Lady Essex.
- g. Half-grown: badly preserved. Berbice. Presented by Lady Essex.
- h. Adult. Guadaloupe. From M. Parzudaki's Collection.
- i. Adult: head injured. Venezuela. From Mr. Dyson's Collection.
- k. Adult. Sine patria.
- l. Adult: not good state. Sine patria.
- m. Half-grown male: bad state. Sine patria. From the Haslar Collection.

*Young specimens*: *Dendrophis viridis*, *Dum. & Bibr.* p. 202. pl. 79 (coloration bad).

Olive, with narrow, lighter, rather oblique cross bands.

- n. Caraccas. From M. Parzudaki's Collection.
- o. Venezuela. From Mr. Dyson's Collection.

These specimens agree perfectly with the description of *Dendrophis viridis* given by Duméril, *l. c.*, as to the arrangement and structure of the head-shields and scales. On the other hand, they agree quite as well with the specimens of *H. fuscus* which exhibit the fourth upper labial coming into the orbit. An accurate examination of all our specimens of *H. fuscus* shows that the above shield often enters the orbit. As to the



coloration, Schlegel mentions (*Essai*, ii. p. 179) young individuals provided with whitish cross bands; and the imperfect condition of the only specimen, upon which the species was founded by the French herpetologists, led them to believe that it was uniform green-coloured.

## 2. HERPETODRYAS CARINATUS.

*Coluber carinatus*, Linn. *Mus. Ad. Fried.* p. 384. *Cheronius carinatus*, Fitz. *Neue Classif.* p. 60. *Tyria quadricarinata*, Fitz. *Neue Classif.* p. 69. *Herpetodryas carinatus*, H. *bicarinatus*, H. *quadricarinatus*, and H. *sexcarinatus*, Boie, *Isis*, 1827, p. 548. *Coluber bicarinatus*, Wied, *Beitr.* p. 284, and *Abbildg.* viii. t. 2. *Coluber pyrrhopogon*, Wied, *Beitr.* p. 291, and *Abbildg.* ix. t. 3. *Natrix bicarinata* and N. *sexcarinata*, Wagl. *Serp. Bras.* t. 7, & t. 6. f. 1. *Natrix cinnamomea*, Wagl. *Icones*; Wagl. *Naturl. Syst. der Amph.* p. 180; Schleg. *Ess.* t. 7. f. 5-7, and *Abbildg.* t. 44. f. 10-12 (skull); Dum. & Bibr. vii. p. 207.

Scales in ten or twelve rows, some of which are keeled.

- a. Adult. Brazil. Presented by Lord Stuart.
- b. Adult: injured. Brazil.
- c. Half-grown. Brazil. Presented by Lord Stuart.
- d. Adult: injured. Demerara. From Mr. Snellgrove's Collection.
- e. Half-grown: injured. Para. Presented by R. Graham, Esq.
- f. Adult. Berbice. Presented by Lady Essex.
- g. Adult: injured. Trinidad.
- h, i. Adult. Venezuela. From Mr. Dyson's Collection.
- k. Adult. America. Presented by Mr. Tennant.
- l. Adult. America. From Mr. Bartlett's Collection.
- m. Adult: bad state. America. Old Collection.
- n. Adult. America. Presented by Mr. Tennant.
- o. Adult male: bleached. America. Old Collection.
- p. Young: injured. America.—Anterior part of back with a yellow vertebral line; second and third pair of subcaudals united.

## 3. HERPETODRYAS BODDAERTII.

*Coluber boddaertii*, Seetzen in *Meyer's Archiv*, ii. p. 59; Merr. *Tent.* p. 110. *Coronella boddaertii*, Boie, *Isis*, 1827, p. 539. *Herpetodryas boddaertii*, Schleg. *Ess.* ii. p. 185; Dum. & Bibr. p. 210.

Upper labials nine, the fourth, fifth and sixth coming into the orbit; two posterior oculars, one ante-ocular reaching the vertical. Scales smooth, in seventeen rows; habit moderately

slender. Uniform olive-green, *sometimes with two narrow, paler, longitudinal streaks*; beneath uniform pale olive; ventral shields recurved on the sides.

A. With conspicuous longitudinal streaks.

- a. Adult. Para. From Mr. Stevens's Collection.
- b. Adult. Demerara. From Mr. Snellgrove's Collection.
- c. Adult: injured. Maracaibo. Presented by Mr. Lowe.
- d. Adult. Venezuela. From Mr. Dyson's Collection.
- e, f. Young: not good state. W. Indies. Presented by Colonel Reid.
- g. Adult: head injured. West Indies. Presented by Edward Cook, Esq.

B. Without streaks.

- h. Adult. Mexico. From Hugo Finck's Collection.
- i. Adult. West Indies. Presented by Colonel Reid.
- k. Adult. West Indies. Presented by G. Cook, Esq.
- l. Adult. West Indies. From Mr. Scrivener's Collection.
- m. Adult. Barbice.
- n. Adult. America. From the Paris Museum.
- o. Adult: greatly injured. America.
- p. Half-grown. America.

4. *HERPETODRYAS BRUNNEUS*.

Scales keeled, in seventeen rows; nine upper labials; above uniform brown, beneath yellowish.

- a. Adult. Guayaquil.

*Description of the specimen.*—Habit like that of *H. boddaertii*. Shields of head proportionate; vertical rather broad in front, with concave outer edges and a right angle behind. Occipitals rather small, divergent behind, and forming a rather obtuse angle; anterior ocular single, raised on the surface of crown, but not reaching the vertical; two posterior oculars; nine upper labials, the fourth, fifth and sixth coming into the orbit; five temporal shields, two of which are in contact with the oculars. Scales elongate, in seventeen rows, those of the seven dorsal rows keeled. Above uniform brown (without epidermis olive); belly yellowish, the dark coloration of the back extending on the edges of abdomen. Length of the cleft of mouth 1"; length of tail 12"; total length 39".

5. *HERPETODRYAS RAPPII*.

Scales smooth, in seventeen rows; one anterior ocular; nine upper labials, the fourth, fifth and sixth touching the orbit.

*Adult* : back with a broad, dark brown, anteriorly yellow-edged dorsal band ; sides brown, irregularly black-spotted ; belly uniform yellowish, on the sides black-spotted ; longitudinal bands along the middle of belly very obsolete.

*Younger individuals* : back with quadrangular brownish-olive cross bars, alternating with more irregular lateral spots ; belly more or less black-spotted, spots sometimes arranged in longitudinal rows.

- a. Adult. Venezuela. From Mr. Dyson's Collection.
- b. Half-grown. Venezuela. From Mr. Dyson's Collection.
- c, d. Half-grown. Venezuela. From Mr. Dyson's Collection.
- e. Half-grown. Berbice. Presented by Lady Essex.
- f. Half-grown : not good state. Berbice.
- g. Young : bad state. Brazil. Old Collection.
- h. Half-grown. West Indies. Presented by Colonel Reid.
- i. Young. America.
- k. Half-grown. America. From Mr. Mather's Collection.
- l, m. Half-grown. America. Presented by Edward Cook, Esq.
- n. Young : bad state. America.
- o. Half-grown. America. Presented by the College of Surgeons.

*Description*.—Habit slender ; head depressed, flat, rather narrow, but distinct from neck ; eye moderate. Rostral shield broader than high, rounded above, reaching the surface of head ; frontals moderate, subquadrangular ; vertical more than twice as long as broad, with much convergent and concave outer edges, and a right angle behind ; occipitals moderate, rather deeply forked (under a right angle), in young individuals not forked ; anterior ocular raised on the surface of crown, grooved before the eye, not reaching the vertical ; two posterior oculars ; superciliary prominent, elongate ; loreal elongate, two moderate nasals ; upper labials nine, fourth, fifth and sixth coming into the orbit ; temporal shields five or six, two elongate in front, two broader ones behind, one or two small ones between. Scales smooth, rhomboid, in seventeen rows ; anal bifid. Teeth equal, smooth.

This species is one of the most interesting, on account of the differences of colour in old and young individuals. We may add to the above description of the colour, that some scales of the front part of the brown dorsal band, occupying the whole breadth of the back, are white-edged, forming together narrow white lines ; upper labials yellow, above and beneath black-edged ; lower jaw, chin and throat black, with a few rounded white spots. In younger individuals the dorsal cross bands are very regularly quadrangular-oblong, the lateral ones subquadrangular ; ground colour of the throat black, but the round white spots are predominant. This species is named in honour of Professor W. von



Rapp, of Tübingen, the author of a celebrated work on the Edentata, who constantly directed my attention to the great variations of colour to which the lower Vertebrata especially are subjected.

## 6. HERPETODRYAS FLAGELLIFORMIS.

Coach-whip Snake, *Anguis flagelliformis*, *Catesby, Nat. Hist. Carol.* ii. t. 54; *Bartr. Trav. in Carol.* p. 219. *Coluber flagellum*, *Shaw, Gen. Zool.* iii. p. 475. *Herpetodryas psammophis*, *Schleg. Ess.* ii. p. 195; *Abbildg.* t. 44. f. 21–24. *Psammophis flagelliformis*, *Holbr. N. Amer. Herpet.* iv. pl. 2. *Masticophis flagelliformis*, *Baird & Girard, Catal.* p. 98. *Herpetodryas flagelliformis*, *Dum. & Bibr.* vii. p. 210.

Body very slender and elongated; tail one-fourth the length of body. Scales lanceolate, smooth, in seventeen (nineteen) rows. Above greyish brown, sometimes with darker blotches, beneath lighter, more or less blotched with purplish brown.

*a.* Adult. N. America. Presented by Edward Doubleday, Esq.

## 7. HERPETODRYAS FLAVIGULARIS.

*Psammophis flavigularis*, *Hallow. Proc. Ac. Nat. Sc. Philad.* 1852, p. 178; *Sitgreave's Report of an Exped.* pl. 11. *Masticophis flavigularis*, *Baird & Girard, Catal.* p. 99; *Marcy, Explor. of the Red River*, p. 230.

Habit slender. Scales smooth, in seventeen or nineteen rows; two anterior and two posterior oculars; upper ante-ocular reaching the vertical; upper labials eight, the fourth and fifth coming into the orbit. Above dirty yellow, beneath yellowish; belly with a more or less conspicuous lateral series of darker spots.

*a.* Skin of an adult, in spirit. Texas. From Mr. Cuming's Collection (seventeen rows).

Var. On each side of body and tail a yellow, dark-edged band; a second parallel yellowish line above it. Scales in nineteen rows.

*b.* Adult. North America.

## 8. HERPETODRYAS DENDROPHIS.

*Schleg. Ess.* ii. p. 197, and *Abbildg.* t. 44. f. 25–28; *Dum. & Bibr.* vii. p. 208.

Scales keeled, in fifteen rows. Olive, with darker cross-bands.

*a.* Adult female: discoloured, in fluid. Cayenne.



## 2. CYCLOPHIS, Günther.

Habit slender; belly rounded; head ovoid, distinct from neck; shields of crown regular; one anterior, two posterior oculars; one loreal (in one species wanting); one nasal, pierced by the nostril. Scales subelliptical, rather large, smooth, in fifteen rows (in one species keeled, in seventeen). Eye rather large, pupil round. All the teeth equal, smooth. East Indies; North America.

*Chlorosoma*, Baird & Girard, *Catal.* p. 108. *Leptophis*, Holbr. *N. Amer. Herpet.* iii. p. 17; Baird & Girard, *Catal.* p. 106. *Herpetodryas*, sp., Schleg. *Ess.* ii. p. 187. *Coluber*, sp., *auct. prior.*

### 1. CYCLOPHIS ÆSTIVUS.

*Catesby*, *Hist. Carol.* ii. t. 57. *Coluber æstivus*, Linn. *Syst. Nat.* i. p. 387; *Shaw*, *Zool.* iii. p. 551; *Harl. Journ. Ac. Nat. Sc. Philad.* 1827, p. 357, and *Med. Phys. Res.* 1835, p. 121; *Lacép. Quadr. Ovip. Serp.* ii. p. 395; *Latr. Rept.* iii. p. 88; *Daud. Rept.* viii. p. 101. *Natrix æstiva*, Merr. *Tent.* p. 121. *Herpetodryas æstivus*, Schleg. *Ess.* pl. 7. f. 12, 13; *Dum. & Bibr.* p. 209. *Leptophis æstivus*, Holbr. *N. Amer. Herpet.* iv. t. 3. *Leptophis æstivus* and *L. majalis*, Baird & Girard, *Catal.* p. 106, and in *Marcy, Explor. of the Red River*, pl. 9.

Scales keeled, in seventeen rows; seven upper labials; one nasal; snout rounded, rather blunt in front. Above uniform olive-green, beneath paler. (See *Philodryas æstivus*.)

- a. Adult. Texas. From Mr. Cuming's Collection.
- b. Adult. New Orleans. From M. Sallé's Collection.
- c. Adult. California. Presented by Mrs. Drummond.
- d. Adult. Michigan. From Mr. Cuming's Collection.
- e. Adult. Delaware. Presented by Edward Doubleday, Esq.
- f. Adult. N. America. Presented by Edward Doubleday, Esq.
- g-i. Adult. N. America. Presented by Edward Doubleday, Esq.
- k, l. Adult. N. America. Presented by Edward Doubleday, Esq.
- m. Adult: male. N. America. Presented by Edward Doubleday, Esq.
- n. Adult. America. From Paris.
- o. Half-grown. West Indies. From Mr. Scrivener's Collection.
- p. Adult. America. From the Haslar Collection.
- q. Adult. America. Presented by the College of Surgeons.

### 2. CYCLOPHIS VERNALIS.

*Coluber vernalis*, (Dekay) *Harl. Journ. Ac. Nat. Sc. Philad.*

1827, p. 361, and *Med. Phys. Res.* 1835, p. 124; *Storer, Reports*, p. 224; *Dekay, New York Fauna, Rept.* t. 11. f. 22; *Holbr. N. Amer. Herpet.* iii. pl. 17. ? *Coluber cyaneus*, *Shaw, Zool.* p. 506 (without synonym.). *Chlorosoma vernalis*, *Baird & Girard, Catal.* p. 108.

Uniform green, paler beneath. Upper labials seven.

- a. Adult. North America. Presented by Dr. J. Bell.
- b, c. Adult. North America.
- d. Young. North America. From Mr. Stevens's Collection.
- e. Half-grown: discoloured. Florida. Old Collection.
- f. Adult. North America.
- g. Adult. N. America. Presented by the Zoological Society.
- h. Adult: discoloured. North America. Old Collection. Named by Dr. E. W. Gray, and described by Dr. Shaw as *Coluber cyaneus*.

(The genus *Chlorosoma*, established by Wagler for *Philodryas viridissimus*, cannot be applied to *Coluber vernalis*; they are too different from one another.)

### 3. CYCLOPHIS MAJOR.

Uniform green, paler beneath. Upper labials eight.

- a. Adult. Near Ningpo, China. From Mr. Cuming's Collection.

Quite similar to *C. vernalis*, except in the number of labial shields and in size. Length of cleft of mouth  $\frac{2}{3}$ "; length of tail 7"; total length  $30\frac{1}{2}$ ".

### 4. CYCLOPHIS FRENATUS.

Upper labials seven. Olive (in spirits): on each side of the anterior part of body three black longitudinal stripes, the upper one broadest, beginning from the eye.

- a. Mountains near Affghanistan. Presented by the Hon. East India Company.

*Description.*—Habit more slender than in the other species; head distinct from the slender neck, broad between the eyes, with short muzzle. Rostral broad, rounded, reaching the surface of head; anterior frontals narrow; posterior ones twice as broad, and bent on the sides; vertical broad in front, with very divergent lateral edges; superciliaries broad behind; occipitals rounded and divergent behind; one anterior, two posterior frontals; loreal square; nostril in the centre of nasal, its cleft reaching the first labial; seven upper labials, the third and fourth forming the lower edge of orbit; three large temporals; chin-shields regular. Anal bifid. Crown of head, back, posterior part of

body uniform olive; a broad black band beginning from the back edge of eye, tapering and disappearing on the second fifth of total length, a second from the throat along the edges of the ventral plates, and a third intermediate; both the latter much narrower than the first, and disappearing on the same region. Beneath uniform yellowish. Length of cleft of mouth  $\frac{2}{3}$ "; length of tail 8"; total length 27".

### 5. CYCLOPHIS TRICOLOR.

*Herpetodryas tricolor*, *Schleg. Ess.* p. 187. pl. 6. f. 16-18.

Loreal none; eight upper labials. Above greenish olive, beneath yellowish, a black streak from the back edge of eye along the sides of the anterior part of body.

*a.* Adult. Java. From the Leyden Museum.

### 3. DRYOCALAMUS, *Günther*.

Teeth equal in length, none grooved. Body very slender, much compressed; head short, with rounded muzzle, depressed; loreal united with anterior ocular, two posterior ones; one nasal, pierced by the nostril. Scales smooth, in fifteen rows. Ventral plates appearing to be formed out of three pieces, one medial and two lateral ones; latter raised on the sides, erect. Eye moderate.

#### 1. DRYOCALAMUS TRISTRIGATUS.

Above brown, with three white longitudinal stripes; beneath whitish.

*a.* Sine patria. From the Haslar Collection.

*Description.*—In general appearance similar to *Ablabes geminatus*, but more slender and compressed; head with flat crown, depressed; muzzle rather short, rounded. Rostral shield broad, raised on the surface of head; frontals moderate, both pairs not bent on the sides; vertical twice as long as broad, with nearly parallel outer edges, and a right angle behind; occipitals elongate, obtuse behind; two posterior oculars, anterior ocular united with loreal; one quadrangular nasal pierced by the nostril; seven upper labials, third and fourth forming the lower edge of orbit. Two temporal shields in contact with both posterior oculars; first pair of lower labials forming together a suture; two pairs of chin-shields behind. Scales short, rhombic, smooth, in fifteen rows. Ventral plates strongly keeled, and raised on the sides; anal entire. Above brown, with three white streaks from the

occiput to the tip of tail, each occupying one scale and two halves; belly and outer row of scales uniform whitish. Length of cleft of mouth  $\frac{5}{12}$ "; length of tail  $3\frac{1}{4}$ "; total length  $14\frac{1}{2}$ ".

#### 4. GONYOSOMA, *Wagl.*

*Dryadidae* with smooth teeth, equal in length. Head with flat crown and a much-elongated muzzle; one anterior and two posterior ocular shields; two nasals; body very long, compressed, much higher than broad; belly flat; ventral plates angularly keeled and recurved on the sides; tail long. Scales moderate, lanceolate, along the back less elongate than on the sides.

Gonyosoma, *Wagl. Nat. Syst. der Amph.* p. 184; *Dum. & Bibr.* vii. p. 213. *Herpetodryas*, sp., *Schlegel, Cantor, &c.* *Tyria*, sp., *Fitzinger*. *Coluber*, sp., *auct. prior*.

##### 1. GONYOSOMA OXYCEPHALUM.<sup>1</sup>

*Coluber oxycephalus*, *Reinw.*; *Boie, Isis*, 1827, p. 537. *Tyria oxycephala*, *Fitz. Neue Classif.* p. 60. ? *Coluber cærulescens*, *Linn. Mus. Ad. Fried.* t. 20. f. 2; *Daudin, Rept.* vi. p. 320; *Shaw, Gen. Zool.* iii. p. 514; (*Merr. Tent.* p. 112. *Natrix cærulescens* = *Dryophylax viridissimus*). *Coluber subcyaneus*, *Lacép. Quadr. Ovip.* ii. p. 239. *Gonyosoma viride*, *Wagl. Icon.* t. 9, and *Nat. Syst.* p. 185. *Herpetodryas oxycephalus*, *Schleg. Ess.* t. 7. f. 8-10, and *Abbildg.* t. 44. f. 1-9 (Java); *Cantor, Catal. of Malayan Rept.* p. 80. *Gonyosoma oxycephalum*, *Dum. & Bibr.* vii. p. 213.

Scales in twenty-three to twenty-five rows; loreal shield very slender, elongate. Head with a dark streak above the lips through the eye on each side of the neck.

Var. A. Above green (in spirits blue), beneath yellowish.

a. Adult. Java. From the Leyden Museum.

b, c. Adult and half-grown. Java? From Mr. Argent's Collection.

d. Adult. Borneo. Presented by Sir James Brooke.

e. Adult. Borneo. Presented by Captain Sir E. Belcher.

f. Adult. Philippine Islands. From Mr. Cuming's Collection.

g. Young: injured. Philippine Islands. From Mr. Cuming's Collection. (Posterior frontals divided into two.)

h. Adult: rather discoloured. Singapore. Presented by General Hardwicke.



- i. Adult: bleached. Singapore. Presented by General Hardwicke.
- k. Adult: rather discoloured. India. Presented by Professor Oldham.
- l. Adult. India. From Mr. Warwick's Collection.
- m. Adult. India.
- n. Adult. India.

Var. B. Brown, with a black band along the sides.

## 2. GONYOSOMA FRENATUM.

*Herpetodryas frenatus*, J. E. Gray, *Ann. & Mag. Nat. Hist.* 1853, p. 390.

Scales in nineteen rows; loreal shield none. Head with a very well-defined black streak through the eye to the cheek. Uniform green.

a. Khasya. Presented by Dr. J. Hooker.

## 5. PHILODRYAS, Wagler.

Posterior maxillary tooth longest, grooved. Body and tail elongate, more or less compressed; head conical. One loreal; anterior ocular generally one; posterior two or three. Scales moderate, in seventeen to twenty-one rows. Eye moderate. South America; Madagascar.

*Dryophylax*, *Dum. & Bibr.* vii. p. 1103. *Herpetodryas*, sp., *Schleg. Ess.* ii. p. 173. *Xenodon*, sp., *Boie, Isis*, 1827, p. 541; *Schleg. l. c.* p. 91. *Philodryas* and *Chlorosoma*, *Wagl. Natürl. Syst. Amph.* p. 185. *Coronella*, sp., *Boie, Isis*, 1827, p. 539.

## 1. PHILODRYAS VIRIDISSIMUS.

*Coluber viridissimus*, *Linn.* edit. xii. p. 388; *Mus. Ad. Fried.* p. 46; *Daubent. Quadr. Ovip. Serp. Encycl.* p. 697; *Lacép. Quadr. Ovip. Serp.* ii. p. 315; *Bonnat. Ophiol. Encycl. Méth.* p. 12; *Merr. Beitr.* i. pl. 12; *Latr. Hist. Rept.* iv. p. 128. *Coluber janthinus* and *C. viridissimus*, *Daud. Hist. Rept.* vi. p. 273 a, 302. *Natrix coerulescens et viridissima*, *Merr. Tent.* pp. 112 & 113. *Coronella viridissima*, *Boie, Isis*, 1827, p. 539. *Chlorosoma viridissimum*, *Wagl. Nat. Syst. der Amph.* p. 185. *Herpetodryas viridissimus*, *Schleg. Ess.* t. 7. f. 10, 11; *Filippi, Catal. (Bibl. Ital.* t. 99). *Dryophylax viridissimus*, *Dum. & Bibr.* vii. p. 1106.

Head moderate, with flat crown; loreal shield rather elongate; body compressed; belly flat; abdominal plates angularly recurved

on the sides; scales smooth, in nineteen rows. Uniform green (in spirits blue); beneath paler.

- a.* Adult. Cayenne. Presented by H. Cadogan Rothery.
- b, c.* Adult. Berbice.
- d.* Adult: head injured. Berbice.
- e.* Greatly injured. Demerara. From Mr. Snellgrove's Collection.
- f.* Adult: discoloured. America.
- g.* Nearly adult: injured. America.
- h.* Half-grown: injured. America. Presented by Mr. Tennant.
- i.* Half-grown. America. Presented by J. C. Taunton, Esq.
- k.* Half-grown. Brazil. Presented by W. Swainson, Esq.
- l.* Half-grown: bad state. Pernambuco.
- m.* Young: bad state. Brazil. Presented by W. F. Evans, Esq.
- n.* Half-grown. West Indies. Presented by Miss Saul. A black streak through the eye.
- o.* Adult. —?
- p.* Adult: not good state. America.
- q.* Adult: not good state. America. Presented by the College of Surgeons.

## 2. PHILODRYAS OLFERSII.

*Coluber olfersii*, *Lichtenstein*, *Doubl.* p. 104. *Coluber olivaceus*, *Olfers*. *Coluber pileatus*, *Wied*, *Beitr.* p. 344, and *Abbildg. Boie*, *Isis*, 1827, p. 537. *Coluber herbeus*, *Wied*, *Beitr.* p. 349, and *Abbildg.* viii. t. 3. *Philodryas olfersii*, *Wagl. Nat. Syst. der Amph.* p. 185. *Herpetodryas olfersii*, *Schleg. Ess.* t. 7. f. 14, 15. *Dryophylax olfersii*, *Dum. & Bibr.* vii. p. 1109.

Body not much compressed. Scales smooth; upper labials eight. Green: crown of head and vertebral line reddish brown; temple with a black streak from the eye.

- a.* Adult. Brazil. From Mr. Clausen's Collection.
- b.* Adult. Brazil. Presented by Lord Stuart.
- c.* Adult. Brazil. Presented by Lord Stuart.
- d.* Half-grown. Brazil.
- e.* Half-grown. Brazil. Presented by Lord Stuart.
- f.* Half-grown. Rio Janeiro. Presented by Mr. Busk.
- g.* Adult female. Pernambuco. Presented by J. P. G. Smith, Esq.
- h.* Young. Pernambuco. Presented by J. P. G. Smith, Esq.
- i.* Half-grown. Bahia. From the Haslar Collection.
- k.* Half-grown. Demerara. Presented by Captain Sabine.
- l.* Adult. America.

- m. Adult: injured. America. From the Haslar Collection.
- n. Adult. America. From the Haslar Collection.
- o. Fine specimen. Argentine Republic. Presented by the Zoological Society. Above uniform green.

### 3. PHILODRYAS ÆSTIVUS.

*Dryophylax æstivus*, *Dum. & Bibr.* p. 1111.

Scales keeled, in nineteen or twenty-one rows; two nasals; snout rounded in front; rostral conically pointed. Above uniform olive-green, beneath paler. (See *Cyclophis æstivus*.)

- a. Adult. Brazil. From Mr. Clausen's Collection.
- b. Young. Brazil. Presented by W. F. Evans, Esq.
- c. Adult. Sine patria. From the Haslar Collection. Scales in twenty-one rows.
- d. 2' 9" long. Argentine Republic. Presented by the Zoological Society. Scales in twenty-one rows.

### 4. PHILODRYAS SCHOTTII.

*Coluber schottii*, *Fitzinger, Neue Classif. Rept.* p. 57. *Xenodon schottii*, *Boie, Isis*, 1827, p. 541; *Schleg. Ess.* pl. 3. f. 8, 9. *Pseudophis schottii*, *Fitz. Syst. Rept.* p. 26. *Dryophylax schottii*, *Dum. & Bibr.* vii. p. 1118.

Scales smooth, lanceolate, in very oblique rows; nineteen rows. Greenish olive, each scale black-edged.

- a. Adult. Brazil. From Mr. Clausen's Collection.
- b. Adult: tail injured. Pernambuco. Presented by J. P. G. Smith, Esq.
- c. Adult: not good state. Brazil. From the Haslar Collection.

### 5. PHILODRYAS SERRA.

*Herpetodryas serra*, *Schleg. Ess.* pl. 7. f. 1, 2. *Dryophylax serra*, *Dum. & Bibr.* p. 1113.

Scales keeled, in twenty-one rows. Brownish: a dorsal series of large black square spots; posteriorly uniform blackish. Brazil.

### 6. PHILODRYAS GOUDOTII.

*Herpetodryas goudotii*, *Schleg. Ess.* ii. p. 187. *Dryophylax goudotii*, *Dum. & Bibr.* p. 1122.

Scales smooth, in twenty-one rows; brownish, paler beneath; back with numerous black, narrow, oblique cross streaks. Madagascar.

## 7. PHILODRYAS DORSALIS.

Scales smooth; upper labials seven. Olive: back dark olive or brown; belly posteriorly marbled with black.

*a. Adult.* St. Domingo. From M. Sallé's Collection.

*Description.*—Body moderately slender; tail elongate; head with flat crown, and rather obtuse muzzle; rostral shield broad, obtuse above, not reaching the surface of head; anterior frontals small, circular, spheroid; posterior ones bent on the sides; vertical moderate, with rather convergent outer edges, and an acute angle behind; superciliaries large, broad behind, prominent; occipitals behind rather narrow, rounded. Anterior ocular deeply grooved, raised on the surface of head, but not reaching the vertical; two posterior oculars; loreal moderate; two small nasals; seven upper labials, third and fourth forming the lower edge of eye; only one elongate temporal in contact with one or both oculars, four shorter ones behind. Scales moderate, in nineteen rows; anal bifid. Back dark olive, nearly black; sides and belly olive, about the middle of body marbled with black. Posterior maxillary tooth longest, grooved. Length of cleft of mouth  $\frac{7}{8}$ " ; length of tail 14" ; total length 44".

6. DROMICUS, *Bibron*.

Posterior maxillary tooth largest, smooth. Body and tail generally moderate, sometimes slender, rounded; head with flat crown, moderate. One loreal (in *D. ater* wanting); anterior ocular one, posterior two. Scales rather short, generally in seventeen or nineteen, exceptionally in fifteen, in one species in twenty-three rows. Eye moderate. West Indies; S. America.

*Dromicus*, *Dum. & Bibr.* vii. p. 646. *Leptophis*, sp., *Dum. & Bibr.* vii. p. 53. *Psammophis*, sp., *Schleg. Ess.* ii. p. 214, 218. *Herpetodryas*, sp., *Schleg. Ess.* ii. p. 184, 199. *Natrix*, sp., *Gosse, A Naturalist's Sojourn in Jamaica (note)*. *Coronella*, sp., *Boie, Isis*, 1827, p. 532; *Wiegman. Nov. Act.* 1835. *Coluber*, sp., *auct. prior*.

## 1. DROMICUS MARGARITIFERUS.

*Coluber hickanella*, *Shaw, Zool.* iii. p. 511. *Herpetodryas margaritiferus*, *Schleg. Ess.* ii. p. 184, and *Abbildg.* t. 44. f. 19, 20. *Leptophis margaritiferus*, *Dum. & Bibr.* vii. p. 53. *Zamenis tricolor*, *Hallowell, Journ. Ac. Nat. Sc. Philad.* 1855, p. 34. f. 3. One can hardly understand how a herpetologist could describe as a new species, a snake known for more than fifty years, twice described in the most perfect way in the two principal works on



Snakes, once figured, and so well known in all the Collections of Europe; we have not even a good figure to recompense us for such a mistake.

Scales slightly keeled, in seventeen or nineteen rows; each scale black, marked in the centre with a blue (in spirits bluish-white or yellow) spot.

- a. Adult: large specimen. Honduras.
- b. Adult. Honduras.
- c. Many specimens. Mexico. From Mr. Warwick's Collection.
- d. Many specimens. Mexico. From Hugo Finck's Collection.
- e. Adult. Mexico. From M. Sallé's Collection.
- f. Half-grown: greatly injured. Mexico.
- g. Half-grown. Central America. From Mr. Gould's Collection.
- h. Half-grown. Caraccas.
- i. Half-grown. Mexico. From M. Sallé's Collection.

## 2. DROMICUS ATER.

Black Snake, *Natrix atra*, Gosse, *A Naturalist's Sojourn in Jamaica*, p. 228. Grey Snake, *Natrix capistrata*, Gosse, *l. c.* p. 371.

We have not the least doubt that Duméril's *Dromicus leucomelas* should be introduced into the synonymy, although he describes the loreal shield as "une peu plus longue que haute," the absence of which is so characteristic of the species. Some parts of the seventh volume of the *Erpétologie générale* are so crowded with such mistakes, as to render the use of those portions of it only a loss of time.

Loreal shield none. Uniform black or brownish black, or greyish brown or grey; sometimes with distant, large, distinct square spots.

### Var. A. Uniform black.

- a. Adult. West Indies.
- b. Adult. West Indies.
- c. Adult. West Indies. From the Zoological Society's Collection.
- d. Adult: injured. Jamaica. Presented by R. Heward, Esq.
- e. Half-grown. Jamaica; Bluefields. From Mr. Gosse's Collection. The type of his description.
- f. Half-grown. Jamaica.
- g. Adult: not good state. Jamaica. Presented by the Zoological Society.
- h. Adult: very bad state. Jamaica. From the Haslar Collection.
- i. Adult: discoloured. Jamaica. Old Collection.
- j. Half-grown: bad state. Jamaica.

Var. B. Black, with some large white spots.

k Adult. Jamaica. From Mr. Gosse's Collection.

Var. C. Uniform brownish black.

l. Adult : female. Jamaica. Presented by R. Heward, Esq.

m. Adult. West Indies.

n. Adult. West Indies.

Var. D. Uniform greyish brown or grey : *N. capistrata*, Gosse.

o. Half-grown. West Indies.

p. Half-grown. West Indies.

q. Half-grown. Jamaica. From Mr. Gosse's Collection.

r. Half-grown. Jamaica. From Mr. Gosse's Collection.

s. Half-grown : bad state. Jamaica ; Bluefields. From Mr. Gosse's Collection.

t. Half-grown. Jamaica. From Dr. Parnell's Collection.

u. Half-grown. Jamaica. Presented by Captain Parry.

v. Young : very bad state. Jamaica. From Mr. Gosse's Collection.

w. Adult. West Indies. Presented by J. C. Taunton, Esq.

x. Young. Delaware. Presented by H. Doubleday, Esq. Scales in seventeen rows.

Var. E. Greyish brown or grey, with some large white spots.

y. Adult. West Indies.

Var. F. Greyish white, with large, square black spots.

z. Adult. West Indies.

a. Adult. West Indies. Presented by Sir J. MacGregor.

### 3. DROMICUS PLEII.

*Dum. & Bibr.* p. 661.

Habit slender. Scales smooth, in seventeen rows ; one loreal, eight (nine, *Dum. & Bibr.*) upper labials, the fourth and fifth coming into the orbit. Above brownish olive, sides separated from the back by a blackish line ; belly yellowish, on each side of the ventral plates an oblong black spot, forming a punctated longitudinal line on the edges of abdomen.

α. Adult. Rio Janeiro. Presented by A. Fry, Esq.

### 4. DROMICUS AFFINIS.

Habit moderately slender. Scales smooth, in seventeen rows ; one loreal ; seven upper labials, the third and fourth coming into

the orbit. Back greyish olive, the darker coloration of the sides well-defined towards the back; a black streak through the eye, confluent with a black spot on the neck; behind the eye a whitish spot. Belly yellowish, on each side of the ventral plates a small black spot, forming a punctated longitudinal line on the edges of abdomen.

- a. Adult. Rio Janeiro. Presented by A. Fry, Esq.
- b. Adult. Rio Janeiro. Presented by G. Busk, Esq.
- c. Half-grown. Brazil. From the Haslar Collection.

? Var. Scales in nineteen rows; above uniform brown, paler beneath, a blackish streak through the eye. Perhaps = *Dromicus unicolor*, Dum. & Bibr. p. 658.

- d. Adult. Jamaica. Presented by R. Heward, Esq.

Sometimes a very narrow, distinct, medial brown line, beginning from the collar-like spot on the neck, more conspicuous in front; on the posterior parts the back is separated from the sides by a similar very narrow punctated line; the punctated lines of abdomen continued on the tail; anal bifid; anterior ocular just reaching the surface of crown; two posterior ones.

## 5. DROMICUS ANGULIFER.

*Bibron*, in *Hist. de l'Ile de Cuba* de M. Ramon de la Sagra, p. 222, and *Atlas*, pl. 27, named *Coluber cantherigerus* (head not good). *Dum. & Bibr.* vii. p. 670.

Habit slender. Scales smooth, in seventeen rows; one loreal shield; nine upper labials, the fourth, fifth and sixth coming into the orbit; two posterior oculars; one ante-ocular, not reaching the vertical. Olive or light brown, with a few large, black, arrow-shaped spots on the back; belly uniform yellowish. (See *Dromicus antillensis* and *Philodryas dorsalis*, natives of the same islands.)

- a. Adult. Cuba. From M. Sallé's Collection.
- b. Half-grown. Cuba. From Mr. Jamrach's Collection.

## 6. DROMICUS ANTILLENSIS.

*Psammophis antillensis*, *Schleg. Ess.* ii. p. 214. *Dromicus antillensis*, *Dum. & Bibr.* p. 659.

Habit slender. Scales smooth, in nineteen rows; one anterior, two posterior oculars; eight upper labials, the third, fourth and fifth coming into the orbit. Light brown above, with more or less conspicuous darker stripes; beneath dull yellowish, brown-

marbled. (See *Dromicus angulifer* and *Philodryas dorsalis*, natives of the same islands.)

a. Adult. St. Thomas. From M. Sallé's Collection.

# 7. DROMICUS RUFIVENTRIS.

*Coluber rufiventris*, *Mus. Berol.* *Dromicus rufiventris*, *Dum. & Bibr.* p. 668.

Habit moderately slender. Scales smooth, in twenty-three rows; one loreal; eight upper labials, third, fourth and fifth coming into the orbit. Above brown, with irregular darker longitudinal streaks; a reddish-brown streak from the muzzle through the eye, along the sides of neck, soon disappearing. Belly dull yellowish, marbled with brown.

a. Adult. W. Indies; St. Kitt's. Presented by — Hogan, Esq.

b. Adult. St. Kitt's. Presented by — Hogan, Esq.

c, d. Half-grown. St. Kitt's. Presented by — Hogan, Esq.

e-g. Half-grown. St. Kitt's. Presented by — Hogan, Esq.

h. Adult. West Indies.

i. Nearly half-grown. West Indies. Presented by Mrs. Mauger.

k-n. Young: very bad state. West Indies.

o. Young: not good state. West Indies. Old Collection.

# 8. DROMICUS RUFODORSATUS.

Similar to *D. rufiventris*. Scales smooth, in nineteen rows; one loreal, eight upper labials, fourth and fifth coming into the orbit (third exceptionally). Above brown, with two rows of darker rounded spots, posteriorly confluent into cross bars; a dark temple-streak; belly greyish, marbled with brown.

a. Adult: male. America. From the Haslar Collection.

b. Adult: bad state. America.

c. Adult. America. Presented by the Zoological Society.

d. Young. ? Antigua. From Mr. Gardiner's Collection.

*Description.*—Body slender, tail moderate; head elongate with flat crown, narrow; muzzle broad in front. Rostral shield much broader than high, raised to the surface of head; anterior frontals longer than broad, posterior ones moderate; vertical broad in front, with convergent outer edges and a right angle behind; occipitals moderate, rounded behind; anterior ocular large, raised on the surface of crown, but not reaching the vertical; there is accidentally a second minute one in the lower front angle of eye; two (exceptionally three) posterior oculars; one loreal, two nasals, eight upper labials, fourth and fifth coming into the orbit; in one specimen, third, fourth and fifth; eight to ten temporals,



two of which are in contact with the oculars. Scales moderate, rhomboid, in nineteen rows, smooth; anal bifid. Above brown, with two rows of darker rounded spots, confluent into cross bands about the middle of body; on the neck the five or six first spots alternate with yellow ones; beneath greyish, marbled with brown; a dark streak from the back edge of eye to the angle of mouth. Posterior maxillary teeth longest, separated from the other ones by an interval. Coloration not very variable. Length of cleft of mouth  $\frac{7}{8}$ " ; length of tail 11" ; total length 39".

#### 9. DROMICUS TRISCALIS.

*Coluber triscalis*, Linn. *Syst. Nat.* i. p. 385; *Latr. Rept.* iv. p. 103; *Daud. Rept.* vi. p. 377. *Dromicus triscalis*, Dum. & Bibr. p. 672 (?).

Habit moderate. Scales smooth, in seventeen rows; one loreal; upper labials eight, fourth and fifth coming into the orbit. Above brownish, anteriorly with three brown longitudinal stripes, the medial one disappearing on the posterior part of trunk, the outer ones confluent to a single one on the tail.

a. Adult: discoloured. Paraguay. From Mr. Frank's Collection as *Coluber rufiventer*.

#### 10. DROMICUS CALLILÆMA.

*Natrix callilæma*, Gosse, *A Naturalist's Sojourn in Jamaica*, p. 384.

Small; habit moderate. Scales smooth, in nineteen rows; one loreal; seven upper labials, third and fourth coming into the orbit. Brown, minutely speckled with black, sometimes with a darker obsolete dorsal streak; sides separated from back by a darker streak; crown variegated with black; a brown streak through the eye; belly uniform whitish. Anal bifid.

a. Adult: head injured. Jamaica; Bluefields. From Mr.

Gosse's Collection. The type of Mr. Gosse's description.

b, c. Young. Bluefields. From Mr. Gosse's Collection.

d. Adult. Jamaica. From Dr. Parnell's Collection.

e. Adult. West Indies. From Mr. Scrivener's Collection.

f. Adult. West Indies.

g. Adult. West Indies.

h. Half-grown. West Indies.

i. Half-grown. West Indies.

#### 11. DROMICUS TEMMINCKII.

*Psammophis temminckii*, Schleg. *Ess.* pl. 8. f. 14, 15. *Coronella chamissonii*, Wiegman. *Nov. Act.* 1835, t. 19. *Orophis* (Fitz.)

temminckii, *Tschudi, Wiegman. Arch.* 1845, p. 166, and *Fauna Peruana, Herpetol.* p. 52. *Dromicus temminckii, Dum. & Bibr.* vii. p. 663.

Body and tail rather stout; one loreal; scales smooth, in nineteen rows; rostral just reaching the surface of snout. Light brown, with a broad, dark, white-edged vertebral band; on the sides a brown, more or less conspicuous band; the vertebral band generally yellow-edged on the occipital region.

a. Adult. Colchagua, Chili.

b. Adult. Colchagua, Chili.

c. Adult. Chili. From Mr. Bridges' Collection.

d. Half-grown: injured. Mexico?—Belly with two series of small points.

e. Half-grown: injured. Mexico?

f. Half-grown: head injured. Mexico?

g. Half-grown. Mexico?

h. Adult. America.

i. Adult: head injured. America.

## 12. DROMICUS FUGITIVUS.

La Couresse, *Lacép. Quadr. Ovip. et Serp.* ii. pl. 14. f. 2; *Bonnat. Ophiol.* pl. 42. f. 3. *Coluber fugitivus, Donndorf, Zool. Beiträge,* iii. p. 206. *Coluber cursor, Shaw, Zool.* iii. p. 510; *Latr. Rept.* iv. p. 125; *Daud. Rept.* vi. p. 41, and viii. p. 404; *Moreau de Jonnes, Journ. de Phys.* 1818, p. 133; *Merr. Tent.* p. 113. *Herpetodryas cursor, Schleg. Ess.* ii. p. 199. *Dromicus cursor, Bibron in Hist. de l'Île de Cuba par M. Ramon de la Sagra, Rept.* pl. 28; *Dum. & Bibr.* vii. p. 650.

Habit of moderate slenderness; scales smooth, in fifteen or seventeen rows; one loreal. Reddish brown or brown, with six rows of yellowish spots, two on the back, and two on each side near the edge of abdomen; each shield of head black in front and yellowish behind; belly yellowish.

a, b. Adult. Guadeloupe. From M. Parzudaki's Collection.

c-f. Adult and half-grown. St. Lucia. Presented by Miss Alexander.

g. Adult: not good state. St. Lucia. Presented by the Zoological Society.

h. Half-grown. Caraccas.

i. Half-grown. Barbadoes. From Mr. Cuming's Collection.

k-m. Adult: bad state. America. Presented by the Zoological Society.

Var. Deep black, generally with two dorsal bands of yellow

(or white) spots ; sides with more or less yellow spots, sometimes flower-shaped, sometimes exhibiting a tendency to longitudinal bands ; head as in former.

- n.* Adult. Cuba. From M. Sallé's Collection.
- o.* Adult. St. Lucia. From the Haslar Collection.
- p.* Adult. America.
- q.* Adult: rather discoloured. America. Old Collection.—Named by Dr. E. W. Gray, and described by Dr. Shaw as *Col. ornatus*.
- r.* Half-grown. America.
- s.* Half-grown. America.
- t, u.* Half-grown: bad state. Purchased of Mr. Leadbeater.

### 13. DROMICUS MELANOTUS.

*Coluber melanotus*, Shaw, *Zool.* p. 534 ; *Merr. Tent.* p. 132.  
*Coronella melanotus*, Boie, *Isis*, 1827, p. 532. ? *Coluber bilineatus*, Mus. Paris, and *Coronella bilineata*, Boie, *l. c.* p. 525.  
 ? *Coluber raninus*, Bonnat. *Ophiol.* p. 51 ; *Merr. Tent.* p. 106.

Habit of moderate slenderness. Scales smooth, in seventeen rows ; one loreal, eight upper labials, the fourth and fifth coming into the orbit. Back black with two narrow white longitudinal lines ; belly and sides white ; on the sides of the neck the black colour forming some round spots ; through the eye a black streak.

- a.* Adult. Tobago. Presented by W. J. Alfred Ludlam, Esq.
- b.* Half-grown. Venezuela. From Mr. Dyson's Collection.
- c.* Half-grown. Columbia. From Mr. Brandt's Collection.
- d, e.* Adult. West Indies. Presented by Colonel Reid.
- f.* Adult: head injured. West Indies. Presented by Edward Cook, Esq.
- g, h.* Adult: not good state. America. Old Collection.
- i.* Adult. America. From Paris as *C. ranina*.
- k.* Adult. America. Presented by Edward Lapresse, Esq.
- l.* Adult. America.
- m, n.* Adult. America.
- o.* Adult. America. Presented by Mrs. Mauger.
- p.* Adult. America. Presented by Edward Cook, Esq., R.A.
- q.* Adult: not good state. America. Presented by Edward Laforest, Esq.
- r.* Half-grown. America.
- s, t.* Adult. America. Presented by the College of Surgeons.

Var.? Scales in nineteen rows ; anterior part of body not spotted, uniform black with two white lines.

- u.* Adult. America. From the Collection of the Zoological Society.



## 14. DROMICUS LINEATUS.

*Seba*, ii. 1. 9, ii. 2. 4, ii. 12. 3, ii. 42. 5; *Scheuchz.* iv. 715. 2. *Coluber lineatus*, *L. Mus. Ad. Fried.* t. 12. f. 1, t. 20. f. 1; *Shaw*, *Gen. Zool.* iii. p. 529; *Merr. Tent.* p. 112; *Daub. Quadr. Ovip. Serp.* p. 668; *Lacép. Hist. Nat. Serp.* ii. p. 215; *Latr. Rept.* iv. p. 151; *Daud. Rept.* vii. p. 25. *Coronella lineata*, *Boie, Isis*, 1827, p. 539. *Lygophis lineatus*, *Fitzinger, Syst. Rept.* p. 26. *Herpetodryas lineatus*, *Schleg. Ess.* ii. 191. *Dromicus lineatus*, *Dum. & Bibr.* vii. p. 655.

Habit slender. Scales smooth, in nineteen rows. Rostral slightly raised above the surface of snout. Brownish grey, with a brown, black-edged dorsal band from the snout to the end of tail; on each side a black line from the nostril through the eye to the end of tail.

a. Adult female. Para. Presented by R. Graham, Esq.

b. Many specimens, in good state. Demerara. From Mr. Snellgrove's Collection.

c. Adult: tail injured. Berbice.

d, e. Bad state. Guayaquil.

f. Adult. Brazil.

g. Adult. West Indies.

h. Adult. West Indies. Presented by Miss Saul.

i. Adult: bad state. East Indies. Presented by Dr. Russell.

k, l. Adult. Hayti. Presented by the Zoological Society.

m. Adult. America. From the Haslar Collection.

n. Adult: rather discoloured. America. From the Berlin Museum.

o. Adult: dried. America. Presented by J. C. Taunton, Esq.

p. Adult: head injured. America.

q. Adult. —? Presented by Sir Charles Lyell.

r, s. Adult and half-grown. America.

t. Adult: bad state. America.

## Fam. VI. PSAMMOPHIDÆ.

Body and tail elongate or stout, rounded; head short or narrow, with a deep groove before the eye; eye moderate, with round or elliptical pupil; shields of head regular, posterior frontal rounded or angular behind; vertical narrow, superciliary prominent; loreal never wanting; one anterior, two posterior oculars. Scales never keeled, in fifteen to nineteen rows; subcaudals two-rowed. Posterior maxillary teeth grooved, generally fourth or fifth longer than the other ones.

*Psammophis*, *Schleg. Ess.* ii. p. 200. *Psammophis*, *Cœlopeltis*, *Dum. & Bibr.*



*Synopsis of the Genera.*

1. PSAMMOPHIS. Body and head elongate. Scales flat. Africa; Central America. (India?)
2. CŒLOPELTIS. Scales grooved. N. Africa; S. Europe.
3. EUOPHRYS. Body and head moderate. Scales flat. China.
4. PSAMMODYNASTES. Body stout; head short. East Indies.

1. PSAMMOPHIS, *Boie*.

Body and tail elongate; head with flat, on the sides rounded crown; loreal region grooved; snout pointed in front, rather elongate; posterior frontals behind produced in an obtuse angle; vertical shield long, narrow; one elongate loreal, two nasals, one anterior and two posterior oculars. Scales elongate, smooth, in fifteen to nineteen rows; pupil round. Posterior maxillary tooth channeled, long; fourth or fifth maxillary tooth longer than the other ones (in one species equal); anterior teeth of the lower jaw longer than the hinder ones. Africa; Central America. (India?)

*Psammophis*, *Dum. & Bibr.* vii. p. 887; *Wagl. Syst. Amph.* p. 189. *Tomodon*, sp., *Dum. & Bibr.* vii. p. 936. *Psammophis*, sp., *Boie, Isis*, 1827, p. 547; *Schleg. Ess.* ii. p. 201. *Macrosoma*, (*Leach, Bowdich, Ashantee, App.* 493, 1819) *Gray, Ann. Phil.* 1825. *Coluber*, sp., *auct. prior*.

1. PSAMMOPHIS LINEATUS.

*Tomodon lineatus*, *Dum. & Bibr.* vii. p. 936. pl. 73.

Olive, with a dark, black-edged dorsal band from the snout to the end of tail, posteriorly sometimes only the narrow black edges visible; on each side a black line from the nostril through the eye to the end of tail.

a. Adult. Mexico.

In this species all the teeth before the grooved one are equal in length.

2. PSAMMOPHIS CRUCIFER.

*Seba*, ii. 53. 2, and 107. 4. *Coluber lurus*, *Klein, Tent.* p. 36. *Coluber crucifer* (Kreutznatter), *Merr. Beitr.* i. pl. 3, and *Tent.* p. 106; *Daud. Rept.* vii. p. 189. *Psammophis crucifer*, *Boie, Isis*, 1827, p. 547; *Dum. & Bibr.* vii. p. 892. *Psammophis moniliger*, var., *Schleg. Ess.* ii. p. 209. pl. 8. f. 6, 7.

Closely allied to former, but smaller; crown with a medial

longitudinal, and neck with a transverse band, forming together a cross.

- a. Adult. Cape of Good Hope. Presented by Mr. Grasset.
- b. Nearly half-grown. Namaqua. From Mr. Brandt's Collection.
- c. Adult. South Africa.
- d. Adult. South Africa.
- e, f. Half-grown and young. South Africa.
- g. Half-grown. Western Africa. From Mr. Raddon's Collection.
- h, i. Adult. South Africa. From Mr. Argent's Collection.
- k. Adult. South Africa. From Mr. Argent's Collection.
- l. Adult. South Africa.
- m. Adult. South Africa. From Mr. Warwick's Collection.
- n. Adult. South Africa. From the Haslar Collection.
- o. Adult: bad state. South Africa.
- p, q. Half-grown. South Africa.
- r. Young. South Africa.

### 3. PSAMMOPHIS SIBILANS.

*Seba*, ii. 58. 4. *Coluber sibilans*, *Linn. Syst. Nat.* p. 383; *Shaw, Zool.* iii. p. 530; *Merr. Tent.* p. 114; *Lacép. Quadr. Ovip. et Serp.* ii. p. 246; *Bonnat. Ophiol.* p. 56; *Latr. Rept.* iv. p. 116. *Coluber moniliger*, *Daud. Rept.* vii. p. 69. *Coluber gemmatus*, *Shaw, Zool.* iii. p. 539; *Geoffroy, Descript. de l'Eg. Hist. Nat. Rept.* pl. 8. f. 4, and *Savigny in the Supplement*, pl. 4. f. 5. *Psammophis moniliger*, *Boie, Isis*, 1827, p. 547; *Wagl. Syst. Amph.* p. 189; *Schleg. Ess.* pl. 8. f. 4, 5, and *Abbildg.* t. 43. f. 6-8; *Nordmann, Voy. Russ. Mérid. Demidoff*, iii. pl. 4. f. 1 (young); *Dum. & Bibr.* vii. p. 891.

Habit moderately slender; coloration variable.

A. Back brown, yellow-edged, with a yellow, very narrow vertebral line; sides olive, separated from belly by a yellow band.

- a. Adult. Cape of Good Hope.
- b. Half-grown. Cape of Good Hope. Presented by the Earl of Derby.
- c. Adult. Gambia. Presented by the Earl of Derby.
- d, e. Young. Angola. From Mr. Rich's Collection.
- f. Adult. West Africa. From Mr. Rich's Collection.
- g. Adult. West Africa. From Mr. Fraser's Collection.
- h. Half-grown. West Africa. From Mr. Rich's Collection.
- i. Young. West Africa. From Mr. Fraser's Collection.
- k. Adult. Egypt. Presented by Mr. Burton.
- l. Adult: not good state. Egypt. Presented by J. Wilkinson, Esq.
- m. Half-grown. Egypt. From Mr. Thornton's Collection.

- n.* Adult. Africa. From Mr. Argent's Collection.
- o.* Adult: not good state. Africa. From Mr. Argent's Collection.
- p.* Adult. Africa. From Mr. Argent's Collection.
- q.* Adult: injured. Africa. Old Collection.
- r, s.* Adult and half-grown. Africa. Old Collection.
- t.* Adult. Africa.
- u, v.* Adult: tail injured. Africa.
- w, x.* Adult. Africa.
- y.* Adult: bad state. Africa.
- z.* Half-grown. Africa.
- a.* Young. Africa.
- β.* Young. Africa. From Mr. Warwick's Collection.
- γ.* Half-grown. —? From Mr. Argent's Collection.

B. Like former, but yellow vertebral line wanting.

- δ.* Adult. Madagascar. Presented by Dr. J. E. Gray.

C. Back and sides uniform brown, separated from belly by a yellow band.

- ε.* Adult. Egypt. Presented by Mr. Burton.
- ζ.* Adult. Egypt. Presented by Mr. Burton.
- η.* Nearly half-grown.

D. Above uniform brown, beneath uniform yellowish.

- θ.* Adult. West Africa. From Mr. Fraser's Collection.
- ι, κ.* Adult. Egypt. Presented by M. Lefebvre, M.D.
- λ.* Adult: without head. S. Africa. From the Haslar Collection.
- μ, ν.* Half-grown. S. Africa. Presented by Sir J. MacGregor.

E. Bluish olive (in spirits), with five nearly equally broad yellow bands.

- ξ.* Adult. Bengal.
- ο.* Adult: tail injured. India.
- π.* Adult: not good state. India.
- ρ.* Adult. India.

#### 4. PSAMMOPHIS IRREGULARIS.

*Fischer in Abhdlg. aus dem Gebiete der Naturwiss.* 1856, p. 92.  
t. 2. f. 4a, 4b (ante-ocular should not be divided).

Head very broad behind, very distinct from neck; first third of the back black, with scattered irregular yellow spots, hinder third yellow. Each ventral shield with a pair of black spots on each side, forming together four parallel series of specks, lost on the hinder third of the total length. West Africa.

## 5. PSAMMOPHIS ELEGANS.

*Seba*, ii. 60. 1. *Coluber elegans*, *Dr. E. W. Gray, MSS.*; *Shaw, Zool.* iii. p. 536. *Macrosoma elegans*, *Leach, Bowdich, Ashantee, App.* 493, 1819, and *Gray, Ann. Phil.* 1825. *Psammophis elegans*, *Boie, Isis*, 1827, p. 533, 548; *Wagl. Syst. Amph.* p. 189; *Schleg. Ess.* ii. p. 216, and *Abbildg.* t. 43. f. 15, 16; *Dum. & Bibr.* vii. p. 894.

Body and tail very long and slender; head elongate; snout pointed, conical. Head above uniform greyish, freckled with innumerable dusky points; body above brownish grey, with a broad dorsal band from the occiput to the end of tail; on each side a narrower black band from the muzzle through the eye to the end of tail; belly with four obsolete dark-marbled bands.

- a. Adult. Fantee. Presented by J. E. Bowdich, Esq.
- b. Half-grown. Fantee. Presented by J. E. Bowdich, Esq.
- c. Young. Ashantee. From the Leyden Museum.
- d. Adult: injured. West Africa. From Mr. Argent's Collection.
- e. Half-grown. West Africa. From Mr. Argent's Collection.
- f. Half-grown. West Africa. From Mr. Rich's Collection.
- g. Adult. Africa. Old Collection.
- h, i. Adult: bad state. Africa. Old Collection.
- k-m. Half-grown. Africa. From Mr. Argent's Collection.
- n. Adult. Africa. From the Haslar Collection.
- o. Adult: bad state. Africa. From the Haslar Collection.

2. CÆLOPELTIS, *Wagler.*

*Psammophidæ* with a deep groove on the crown; loreal region grooved; head quadrangular, high, pointed in front; snout rather short; vertical shield very long and narrow; two loreals, one nasal, one anterior, and two posterior oculars. Scales lanceolate, longitudinally grooved, in nineteen rows. Pupil sub-ovoid. Posterior maxillary teeth furrowed, anterior equal in length; anterior teeth of the lower jaw longer than the hinder ones. South Europe and North Africa.

*Cælopeltis*, *Wagl. Syst. der Amph.* p. 189; *Dum. & Bibr.* vii. p. 1129. *Psammophis*, sp., *Boie, Isis*, 1827, p. 526; *Schleg. Ess.* ii. p. 203. *Rhabdodon*, *Fleischmann, Dalmat. Nov. Serp. Genera, Erlangen*, 1831. *Coluber*, sp., *Natrix*, sp., *auct. prior.*

## 1. CÆLOPELTIS LACERTINA.

*Geoffr. Descr. de l'Égypte, Rept.* pl. 7. f. 6; *Savigny, Suppl.* pl. 5. f. 2, 3. *Natrix lacertina*, *Wagl. & Spix, Serp. Bras.* t. 5. *Coluber rupestris*, *Risso, Hist. Nat. Eur. Mérid.* iii. 91. *Colu-*



ber neumayeri, *Fitz. N. Class.* p. 57. *Psammophis lacertinus*, *Boie, Isis*, 1827, p. 526; *Schleg. Ess.* pl. 8. f. 1-3. *Coluber æsculapii*, *Dugès, Ann. Sc. Nat.* 1827, pl. 46. f. 17, 18, and *l. c.* 1835, pl. 5. B. f. 1-6. *Cœlopeltis lacertina*, *Wagl. Syst. Amph.* p. 189; *Eichwald, Faun. Casp.-Caucas.* t. 29. f. 1-3; *Dum. & Bibr.* vii. p. 1130. *Rhabdodon fuscus*, *Fleischmann, Dalmat. Nov. Serp. Genera, Dissert. Erlangen*, 1831, t. 2. *Coluber moilensis*, *Reuss, Mus. Senckenb.* 1834, t. 7. *Bothriophis distinctus*, *Eichw. Russ. Caucas.* ii. p. 748. *Cœlopeltis monspessulana*, *Ranzani, Act. Nat. Cur.* 1836, t. 10; *Bonap. Faun. Ital.* pl. .

Greenish brown, uniform or more or less black-spotted.

- a. Adult: not good state. Egypt. Presented by J. Wilkinson, Esq.
- b. Adult. Tripoli. Presented by J. Ritchie, Esq.
- c. Adult. Tripoli. Presented by J. Ritchie, Esq.
- d. Adult. Tripoli. Presented by J. Ritchie, Esq.
- e. Adult: bad state. Tripoli. Presented by J. Ritchie, Esq.
- f. Adult. Tunis. From Mr. Fraser's Collection.
- g. Adult. Tunis. From Mr. Fraser's Collection.
- h. Adult. Tunis. From Mr. Fraser's Collection.
- i. Young. Algiers.
- k. Large specimen. Tangiers. From Mr. Fraser's Collection.
- l. Adult: injured. Portugal. Presented by T. Brightwell, Esq.
- m. Large specimen. West Africa. Presented by the Zoological Society.
- n. Adult. West Africa. Presented by the Zoological Society.
- o. Adult: not good state. West Africa. From the Haslar Collection.

### 3. EUOPHRYS, *Günther*.

Body moderate; head quadrangular, high, with short, rounded, obtuse muzzle and flat crown; loreal region grooved, superciliary prominent, eye large; vertical shield moderate; one loreal, two nasals, one anterior and two posterior oculars. Scales rather elongate, smooth, in nineteen rows. Posterior maxillary tooth longest, grooved; anterior ones equal in length; anterior teeth of the lower jaw longer than the hinder ones. China.

#### 1. EUOPHRYS MODESTUS.

Above yellowish olive, scales lighter or darker edged; beneath uniform whitish.

- a. Adult: female. Canton. From the Haslar Collection.
- b. Adult. —? From the Haslar Collection.

*Description*.—Habit moderate; head rather short, quadrangular, obtuse in front; eye large. Rostral shield spheroid, reaching the surface of head; anterior frontals small, obtuse in front, posterior ones moderate, somewhat rounded behind; vertical elongate, nearly three times as long as broad, with nearly parallel outer edges and a right angle behind; occipitals small, not deeply forked; superciliaries well developed, prominent above the eye; anterior ocular grooved before the eye, and just reaching the vertical in one specimen, in the other not quite extending to it; two posterior oculars, one square loreal, two large nasals; nostril between; seven upper labials, third and fourth forming the lower edge of eye; one temporal shield in contact with both oculars, some smaller ones behind. Scales smooth, not grooved, rather elongate, becoming gradually larger towards the belly, in nineteen rows; anal bifid. Posterior maxillary tooth longest, channeled, anterior ones equal in length. Uniform olive above, scales with whitish narrow outer edges; skin between the scales, and posteriorly the scales at the base, black; beneath uniform whitish. Length of cleft of mouth 1"; length of tail 8"; total length 41".

#### 4. PSAMMODYNASTES, *Günther*.

Body and tail stout; head short, high; crown flat, not rounded; snout pointed in front, short; lips swollen; frontals small, posterior ones rounded behind; vertical shield long, narrow; one short loreal (sometimes divided into two or three); one nasal, pierced by the nostril; one (exceptionally two) anterior, two posterior oculars. Scales rather short, rhomboid, smooth, in seventeen rows; anal entire; pupil elliptic, erect. Anterior maxillary teeth very long, smooth; posterior one long, channeled; middle ones and palatine teeth small, equal; anterior teeth of lower jaw longer than the hinder ones. East Indies.

*Psammophis*, sp., *Boie, Isis*, 1827, p. 547; *Schleg. Ess.* ii. p. 211; *Dum. & Bibr.* p. 895.

#### 1. PSAMMODYNASTES PULVERULENTUS.

*Psammophis pulverulenta*, *Boie, Isis*, 1827, p. 547; *Schleg. Ess.* t. 8. f. 10, 11, & *Abbildg.* t. 43. f. 1-4; *Dum. & Bibr.* p. 895.

Head above with symmetrical black longitudinal marks. Brown, marbled with black, with indistinct black longitudinal bands; beneath yellowish, or brown, marbled with purple, sometimes with two minutely punctated longitudinal bands. Sometimes nearly uniform black.

*a.* Adult. Philippine Islands. From Mr. Cuming's Collection.

- b.* Adult. Philippine Islands. From Mr. Cuming's Collection.  
(Nearly uniform black.)
- c.* Adult. Philippine Islands. From Mr. Cuming's Collection.  
(Nearly uniform black.)
- d.* Adult. Philippine Islands. From Mr. Cuming's Collection.
- e.* Half-grown. Sumatra. From the Leyden Museum.
- f.* Adult. Khasya.
- g, h.* Adult. Khasya.—*f, g, h*, presented by Dr. J. Hooker,  
exhibit the abdominal bands.
- i.* Adult: rather discoloured. Sine patria.

Var. Head above reddish white, with some small brown spots between the eyes; on each side a whitish streak from the back-edge of eye to the end of tail; back reddish brown, with pairs of more or less obsolete lighter spots; belly with small triangular black specks. Perhaps a species; all the specimens of the size of half-grown individuals of *Ps. pulverulentus*, and not of so stout a habit.

*k.* Borneo.

*l.* Borneo. Presented by Captain Sir E. Belcher.

*m.* India. From the Collection of the Zoological Society.

*n.* India. From the Collection of the Zoological Society.

*o.* India. From the Collection of the Zoological Society.

## Fam. VII. RACHIODONTIDÆ.

Diagnosis and synonymy the same as of the only genus.

### 1. DASYPELTIS, *Wagler*.

Habit moderate, rather elongate; belly rounded; tail not distinct from trunk, tapering; head short, high, rounded; snout short, truncated; eyes small; pupil round. One nasal, one anterior, two posterior oculars; shields of crown regular, small; anterior frontals broad in front; posterior ones rather large, bent on the side, and replacing a loreal; vertical largest; occipitals very small; anal entire; scales with a very strong keel, lanceolate, in twenty-three or twenty-five rows. Maxillary teeth minute and scarce (four to seven); gular teeth, formed by the elongated inferior spinous processes of the hinder cervical vertebræ. South and West Africa.

*Rachiodon*, *Jourdan*, *Journ. le Temps*, 1833; *Dum. & Bibr.* vii. p. 491. *Deirodon*, *Owen*, *Odontogr.* p. 220. *Tropidonotus*, sp., *Schleg. Ess.* ii. p. 328. *Dasypeltis*, *Wagler*, *Nat. Syst. der Amph.* p. 178. *Anodon*, *A. Smith*, *Zool. Journ.* 1829, p. 443 (not *Lamk.*). *Natrix*, sp., *Coluber*, sp., *auct. prior*.



1. *DASYPELTIS SCABRA*.

*Coluber scaber*, Linn. *Mus. Ad. Fried.* t. 10. f. 1, and *Syst. Nat.* i. p. 384; *Merr. Beitr.* i. t. 9, and *Tent.* p. 126; *Shaw, Zool.* iii. p. 494; *Daud. Rept.* vi. p. 263; *Daubent. Quadr. Ovip. Serp.* p. 589; *Lacép. Quadr. Ovip. Serp.* ii. p. 198; *Bonnat. Ophiol.* p. 22; *Latr. Rept.* iv. p. 77. *Anodon typus*, *A. Smith, Zool. Journ.* 1829, p. 443. *Dasypeltis scabra*, *Wagler, Syst. Amph.* p. 178; *A. Smith, Ill. of S. Africa, App.* p. 20 (*Eijervreter*), and in text to *D. inornatus*. *Tropidonotus scaber*, *Schleg. Ess.* pl. 12. f. 12, 13.—Anatomy: *Reinhardt, Kongl. Danske Vidensk. Afh.* 1843, pl. 1. f. 24. *Deirodon scaber*, *Owen, Odonotogr.* p. 220, and *Rapp, Untersuchungen über die Giftwerkz. der Schlangen in der Dissert. von Bächtold, Tübingen*, 1843. *Rachiodon scaber*, (*Jourdan*) *Dum. & Bibr.* vii. p. 491.

Scales in twenty-five rows. Brown, with a vertebral series of large, sometimes confluent black spots; on each side narrower spots; crown of head with black arrow-shaped markings.

a. Adult. Cape.

b. Adult. Cape. Voyage of H.M. Ship 'Herald.'

c. Half-grown. Cape. From Paris.

d. Adult. South Africa.

e. Young. West Africa. From Mr. Rich's Collection.

f, g. Half-grown. S. Africa. From Mr. Argent's Collection.

h. Young. South Africa. From the Leyden Museum.

2. *DASYPELTIS PALMARUM*.

*Coluber palmarum*, *Leach, in Tunkey's Narrative Explor. River Zaire*, 1818, *App.* p. 408. *Dasypeltis inornata*, *Smith, Ill. of South Africa*, pl. 73; *Dum. & Bibr.* p. 498.

Scales in twenty-three rows. Uniform brown above, yellowish beneath.

a. Adult. Boma; River Congo. Found on palm-trees. From Dr. Leach's Collection. Type of his description.

b. Adult. Old Calabar. Presented by — Logan, Esq.

Fam. VIII. *DENDROPHIDÆ*.

Body very slender and elongate, pentagonal; head generally elongate, narrow, flat, depressed, distinct from the exceedingly slender neck; snout protruding, rounded, or obtuse in front; upper jaw rather longer than lower; rostral broad, depressed; mouth deeply cleft; nostril lateral, small; eye moderate or large, pupil round; anterior ocular one, posterior two to three; shields



of head regular, elongate; scales very narrow, in fifteen or twenty-one rows; ventral plates generally with two keels, and rising on the sides; subcaudals two-rowed.

Ahætulla, *Gray, Syn.* p. 16. Leptophis, *Bell, Zool. Journ.* 1825, p. 329. Dendrophis, *Schlegel, Essai*, ii. p. 220; *Cuv. Règne Animal*.

*Synopsis of the Genera.*

1. BUCEPHALUS. Ventral plates without keels; head thick; eyes very large.
2. HAPSIDOPHRYS. Ventral plates with keels; head thick; eyes large.
3. CHRYSOPELEA. Ventral plates very strongly keeled.
4. DENDROPHIS. Ventral plates slightly keeled; a vertebral series of larger polygonal scales.
5. AHÆTULLA. Ventral plates slightly keeled; no vertebral series of larger scales; head elongated, with flat crown.

1. BUCEPHALUS, *Smith*.

Body and tail elongate and slender, belly rather rounded on the sides; head high, subquadrangular, rather short, very distinct from neck; eyes excessively large, pupil round; one loreal, one anterior, three posterior oculars, seven upper labials. Scales elongated, very narrow, with strong, eccentric keels, those on the medial row nearly equal to the others; ventral plates without keels; subcaudal plates two-rowed, some entire. Posterior maxillary teeth longest and furrowed, the anterior ones scarce, equal in length. Africa.

Bucephalus, *Smith, Zool. Journ.* 1829; *Dum. & Bibr.* vii. p. 875. Dendrophis, sp., *Schleg. Ess.* ii. p. 238. Dispholidus, *Duvernoy, Ann. Sc. Nat.* 1833.

1. BUCEPHALUS CAPENSIS.

*Thunberg, Voy. Afr., Asie et Japon.* p. 75; *Lichtenst. Reise*, i. p. 257. Bucephalus typicus, B. Bellii, B. gutturalis, and B. jardiinii, *Smith, Zool. Journ.* 1829, p. 441. Bucephalus capensis et B. viridis, *Smith, Ill. of the Zool. of S. Afr.*, sine pag. pl. 3 & pl. 10-13\*. Dispholidus lalandii, *Duvernoy, Ann. Sc. Nat.* xxvi. p. 150, xxx. p. 24. pl. 3; *Cuv. Règ. Anim. Ill.* pl. 29. Dendro-

\* Dr. Smith, in the 'Illustrations,' reduces all his previous species to two, which I am inclined to consider varieties.

phis colubrina, *Schleg. Ess. pl. 9. f. 14-16.* Bucephalus typus, (*Smith*) *Dum. & Bibr. p. 878.*

Coloration variable.

Var. A. *viridis*, *Smith, l. c. t. 3.*

Green above, paler beneath.

a. Adult. Africa. Old Collection.

Var. B. *Smith, l. c. t. 12.*

Uniform dark olive.

b. Adult. Port Natal. Presented by the Rev. H. Calloway.

c. Adult: bad state. South Africa. Presented by Sir J. MacGregor.

Var. C. *Smith, Zool. Journ. 1829, t. 10, 11, and l. c. t. 10.*

Brown, each scale of the two outer rows with a yellow spot in the centre.

d. Adult. Africa. From Mr. Argent's Collection.

Var. D. *Smith, Ill. t. 11.*

Brown, each scale with a spot in the centre.

e. Adult. West Africa. From Mr. Argent's Collection.

f, g. Adult. Africa. From Mr. Argent's Collection.

h. Adult: rather discoloured. Africa. Old Collection.

## 2. HAPSIDOPHRYS, *Fischer.*

Body and tail elongate and slender; belly angular; head high, distinct from neck, with rounded crown; eyes large, pupil round; one loreal, one anterior, two (three) posterior oculars; eight upper labials; scales elongated, lanceolate, keeled; those of the vertebral row equal to the others; ventral plates with moderate keels; subcaudal plates two-rowed. Two or three posterior maxillary teeth longer and stronger, smooth. Africa.

Hapsidophrys, *Fischer in Abhdlg. aus dem Gebiete der Naturw. 1856, p. 110.*

### 1. HAPSIDOPHRYS LINEATUS.

Hapsidophrys lineatus, *Fischer, l. c. p. 111. t. 2. f. 5a, 5b.* Dendrophis nigrolineatus, (*Schleg.*) *Nomenclat. Reptil. Mus. Zool. Berol. p. 26.*

Anal entire; five temporal shields, two (three according to Fischer) posterior oculars. Bluish black, each keel bluish green, forming together longitudinal lines.

- a. Adult. Coast of Guinea.
- b. Adult. W. Africa. From Mr. Raddon's Collection.
- c. Adult. W. Africa. From Mr. Raddon's Collection.

## 2. HAPSIDOPHRYS CÆRULEUS.

*Fischer, l. c. f. 6a, 6b.*

Anal bifid; two or three temporal shields; two posterior oculars; above bluish green; beneath yellowish green. West Africa.

Fischer mentions the teeth as equal, but I found in the best-preserved of our specimens the dentition as above stated.

## 3. CHRYSOPELEA, *Boie*.

Body and tail very elongate and slender; head depressed, snout rather obtuse; nostril between two shields; pupil round; upper labials narrow; scales not much elongated, rhombic; ventral plates appearing to be formed out of three pieces, one medial and two laterals, the latter raised on the sides, erect (in *Ch. præornata*, ventral keels more obsolete); subcaudal plates two-rowed; posterior maxillary teeth longer and furrowed, anterior nearly equal in length. India; Western Africa.

*Chrysopelea*, *Boie, Isis*, 1827, p. 520; *Wagler, Nat. Syst. der Amph.* p. 188; *Dum. & Bibr.* viii. p. 1040. *Dendrophis*, sp., *Reinw., Schleg., Filippi.* *Dipsas*, sp., *Gray, Ind. Zool.* *Coluber*, sp., *Natrix*, sp., *auct. prior.*

## 1. CHRYSOPELEA RHODOPLEURON.

*Seba*, i. 109. 1; *Russell*, i. t. 31, bad. *Dendrophis rhodopleuron*, *Reinw.*; *Schleg. Ess.* t. 11. f. 11-13. *Coluber tristis*, *Daud. Rept.* vi. 430. *Coluber scandens*, *Schneider in Lacép. Uebers. v. Bechstein*, iv. t. 45. f. 2; *Merr. Tent.* p. 129. *Dendrophis tristis*, *Boie, Isis*, 1827, p. 542. *Chrysopelea rhodopleuron*, *Boie, l. c.* p. 547; *Dum. & Bibr.* vii. p. 1045.

Scales keeled. Ground colour purple, red-brown or blackish, sometimes with some irregular black spots on the sides of neck, or with black-edged scales.

a. Adult: not good state. Amboyna. From the Leyden Museum.

## 2. CHRYSOPELEA RUBESCENS.

*Dipsas rubescens*, *Gray, Ind. Zool.* pl. f. 2.

Scales smooth, in fifteen rows; upper labials nine, fourth, fifth

and sixth forming the lower edge of orbit. Above and beneath purple, minutely marbled with brown and irregularly freckled with black; a dark brown streak from the muzzle through the eye to the angle of mouth.

Ventral plates strongly keeled; one elongate loreal; anal bifid. Scales of the medial row rather larger; crown of head without cross bands, purple, symmetrically marbled with brown.—In the stomach of one specimen I found a well-preserved *Draco hæmatopogon*; and in two others, the remainder of some not determinable Saurians.

- a. Adult. Bengal. Presented by General Hardwicke. Original specimen of Dr. Gray's figure.
- b. Adult. Philippines. From Mr. Cuming's Collection.
- c. Adult. Philippines. From Mr. Cuming's Collection.
- d, e. Adult. Borneo. From Mr. Lowe's Collection.
- f. Adult. India. Presented by General Hardwicke.

### 3. CHRYSOPELEA ORNATA.

*Seba*, i. 94. 7, ii. 7. 1, 56. 1, and 61. 2; *Scheuchzer*, t. 606. f. C; *Russell*, i. t. 2. *Coluber ornatus*, *Shaw*, *Gen. Zool.* iii. p. 477. *Coluber ibiboca*, *Latr. Rept.* iv. p. 131; *Daud. Rept.* vi. p. 327. *Natrix ornata*, *Merr. Tent.* p. 109. *Tyria ornata*, *Fitz. Neue Class. Rept.* p. 60. *Chrysopelea ornata* and *C. paradisi*, *Boie, Isis*, 1827, pp. 546, 547; *Wagl. Amph.* p. 188. *Dendrophis ornata*, *Schleg. Ess. pl.* 9. f. 8-10; *Filippi, Catal. Serp. Mus. Pav.* *Chrysopelea ornata*, *Dum. & Bibr.* vii. p. 1042.

Scales smooth, in seventeen rows; black; crown with some yellow cross bands; body regularly ornamented with many small yellow spots, the distribution of which is liable to great variation.

Var. A. Markings obsolete; coloration uniform.

- a. Adult. Philippine Islands. From Mr. Cuming's Collection.

Var. B. Yellow colour predominant: each scale yellow, with a keel-like black streak along its centre, forming together fine longitudinal lines.

- b-d. Adult and half-grown. India. Presented by General Hardwicke.
- e, f. Adult and half-grown: bad state. India. Old Collection.
- g. Adult: not good state. India. Presented by W. C. Masters, Esq.
- h. Large specimen. India. Presented by General Hardwicke.
- i. Half-grown: mutilated. India. Presented by W. C. Masters, Esq.



- k. Half-grown. Philippines. From Mr. Cuming's Collection.
- l. Adult. Borneo. Presented by Captain Sir E. Belcher.
- m. Adult. Sumatra. From Mr. Frank's Collection.
- n, o. Adult. Siam. Presented by J. Bowring, Esq.
- p. Adult. Ceylon. From Mr. Cuming's Collection.
- q. Adult. India.
- r. Adult. India. From the Haslar Collection.
- s. Young. India. From the Haslar Collection.

Var. C. Black colour predominant: each scale black, with a yellow spot in the centre, forming together on the back tetrapetalous flowers.

- t. Young. India. From Mr. Warwick's Collection.
- u. Adult. Labuan. Presented by L. Dillwyn, Esq.
- v. Adult: injured. Malabar Coast. Presented by Dr. Packmann.
- w. Half-grown. Batavia.
- x. Adult. India.

Var. D. Rather uniform; back with pairs of narrow black cross bands, each pair with a red spot between: not quite adult specimens.

- y. Half-grown. Borneo. From Mr. Lowe's Collection.
- z. Half-grown. Rangoon. Presented by Dr. J. E. Gray.
- a. Half-grown. India. Presented by Sir J. MacGregor.
- β. Young: bad state. India. Presented by Sir J. MacGregor.
- γ. Nearly half-grown. India. Presented by the College of Surgeons.

#### 4. CHRYSOPELEA PRÆORNATA.

*Dendrophis præornata*, Schleg. Ess. ii. p. 236. *Oxyrhopus præornatus*, Dum. & Bibr. p. 1039.

Keels of ventral plates obsolete, only on the hinder ones conspicuous. Scales smooth, in fifteen rows; upper labials eight, fourth and fifth touching the eye. Yellow: crown with five black cross bands; anterior part of trunk with black spots, confluent into three longitudinal bands on the posterior parts; ventral keels black-spotted. Senegal.

- a, b. Adult and half-grown. W. Africa. From Mr. Argent's Collection.

This species is so closely allied to *Chrysopelea ornata*, that it is impossible to separate it as a different genus.

4. DENDROPHIS, *Boie*.

*Dendrophidæ* with smooth scales; those of the vertebral row much larger, triangular or polygonal; those of the outer rows much elongated, narrow, quadrilateral, very imbricated. Maxillary teeth equal in length, smooth. Sides of abdomen slightly keeled. India and Australia.

*Dendrophis*, *Boie*, *Isis*, 1827, p. 510; *Dum. & Bibr.* vii. p. 193. *Dendrophis*, sp., *Schlegel*. *Leptophis*, sp., *Bell*. *Ahætulla*, sp., *Gray*. *Coluber*, sp., *auct. prior*.

## 1. DENDROPHIS PICTA.

*Seba*, i. t. 99. no. 3. *Coluber pictus*, *Gmel. Syst. Nat.* p. 1116. *Coluber filiformis*, *Linn. Mus. Ad. Fried.* t. 17. f. 2, jun.; *Russell*, *Ind. Serp.* t. 25, 26. *Coluber cæruleus*, *Bonnat. Ophiol.* p. 30. *Coluber decorus*, *Shaw, Gen. Zool.* p. 538; *Merr. Tent.* p. 128. *Ahætulla decora*, *Gray, Ann. Phil.* 1825, p. 16. *Dipsas schokari*, *Kuhl, Beitr.* p. 80. *Bungarus filum*, *Oppel, Mus. Paris.* *Dendrophis chairecacos*, *Boie, Isis*, 1827, p. 541; *Erpet. Java*, t. 34; *Wagl. Nat. Syst.* p. 183. *Leptophis maniar*, *Bell, Zool. Journ.* ii. p. 329. *Ahætulla bellii*, *Gray, Ill. Ind. Zool. t.* ; *Cantor, Catal.* p. 79. *Dendrophis picta*, *Schleg. Ess.* t. 9. f. 5-7; *Dum. & Bibr.* vii. p. 197.

Bluish green, with a lateral, yellow, above and beneath black-edged band. Scales in fifteen rows.

- a.* Adult. Borneo. Presented by Captain Sir E. Belcher.
- b.* Adult. Borneo. Presented by W. Winstone, Esq.
- c.* Adult. Borneo. Presented by Captain Sir E. Belcher.
- d.* Adult. Borneo. From Mr. Lowe's Collection.
- e.* Young. Borneo. From Mr. Lowe's Collection.
- f.* Adult. Philippine Islands. From Mr. Cuming's Collection.
- g.* Adult female: injured. Philippines. From Mr. Cuming's Collection.
- h, i.* Adult. Sumatra. From the Leyden Museum.
- k-m.* Adult. Java. Presented by J. Bowring, Esq.
- n.* Adult. Java. From Mr. Brandt's Collection.
- o.* Adult. Java. From Mr. Argent's Collection.
- p, q.* Adult. China. Presented by Mr. Ludwig.
- r.* Adult. Bengal. Presented by General Hardwicke.
- s.* Adult. Bengal. Presented by General Hardwicke.
- t.* Adult: bad state. Malabar. Presented by Dr. Packmann.
- u.* Adult: bad state. Ceylon. Presented by R. Templeton, Esq.
- v.* Half-grown. Ceylon. Presented by A. Paul, Esq.
- w.* Young. Ceylon. From Mr. Cuming's Collection.
- x.* Adult. Sikkim. Presented by Dr. Hooker.

- y. Adult : bad state. Khasya. Presented by Dr. Hooker.
- z. Adult. India. Presented by W. Masters, Esq.
- a. Adult. India.
- β. Adult : greatly injured. India.
- γ. Adult : bleached. India. Presented by Dr. Russell. Named by Dr. Shaw as *C. cærulescens*, but does not agree with his description, *Gen. Zool.* iii. p. 514.
- δ. Adult : rather discoloured. India.
- ε. Adult : not good state. Sine patria.
- η. Adult : head injured. Sine patria. From the Haslar Collection.
- θ. Adult. India. From the Haslar Collection.
- ζ, ι. Adult. India. Presented by Sir J. MacGregor.
- κ. Adult. India.
- λ. Adult. India.
- μ. Adult : injured. India. From Mr. Argent's Collection.
- ν. Adult : not good state. India.
- ξ. Adult. India. From the Haslar Collection.
- ο. Half-grown. India. From the Haslar Collection.
- π. Half-grown. India.
- ρ. Half-grown. India.

Var. A. The black lines hardly conspicuous, and disappearing towards the tail ; the anterior scales of the vertebral row yellow.

- σ. Very large specimen. Ceylon. From Mr. Cuming's Collection.
- τ. Adult. East Indies.
- υ. Adult : injured. East Indies. Presented by Sir J. MacGregor.
- φ. Adult. East Indies.
- χ. Half-grown. East Indies.
- ψ. Young. East Indies.

Var. B. Above the upper black edge of the yellow band a second black longitudinal line.

- ω. Half-grown. Philippines. From Mr. Cuming's Collection.

Var. C. Muzzle elongate ; two long loreal shields.

- aa. Adult. Ceylon.

## 2. DENDROPHIS PUNCTULATA.

*Leptophis punctulatus*, *J. E. Gray in King's Australia*, ii. p. 432, and in *Grey's West Australia*, ii. p. 431. *Dendrophis* (*Ahætulla*) *olivacea*, *Gray, Zool. Misc.* p. 54. *Dendrophis lineolata*, *Dum. & Bibr.* vii. p. 200 ; *Voy. au Pole Sud sur les Corvettes l'Astrol. et la Zelée, Ophid.* pl. 2.

Habit moderately slender. Pale uniform olive-brown, outer edge of the scales white. Scales in thirteen rows.

There are one anterior and two posterior oculars; sometimes the lower of the latter is so small, as to require close examination, and as to have been overlooked by Dr. Gray (*D. olivacea*); on the anterior part of body always thirteen rows of scales, on the posterior eleven. On stretching the skin, the white edges of the scales are distinctly visible.

- a. Adult: bad state. New Holland. Presented by J. Hunter, Esq.
- b. Adult. Australia. From the Haslar Collection.
- c. Young. Australia. Presented by Sir J. Richardson.
- d. Adult: injured. Moreton Bay. Presented by Mr. Strange.
- e. Young. N.E. Australia. Presented by Captain Grey.
- f, g. Adult. Port Essington. Presented by the Earl of Derby.
- h, i. Adult. Port Essington. Presented by the Earl of Derby.
- k. Adult. Port Essington.
- l. Adult. Port Essington.
- m. Half-grown: head injured. Port Essington. Presented by the Earl of Derby.
- n. Adult. N.W. Australia.
- o. Young: not good state. Philippines. From Mr. Cuming's Collection.
- p. Half-grown. Ceylon. From Mr. Cuming's Collection.

### 3. DENDROPHIS FORMOSA.

*Reinwardt, Boie, Isis*, 1827, p. 542; *Schleg. Ess. t. 9. f. 3, 4*; *Wagl. Syst. der Amph. p. 183*; *Dum. & Bibr. vii. p. 199*.

Bluish green, with two lateral black stripes on each side. Eyes very large. Scales in fifteen rows.

- a. Adult. India.
- b. Adult: injured. India.
- c. Adult: bad state. India. From Mr. Warwick's Collection.
- d. Half-grown. Affghanistan.
- e. Half-grown. Java. From the Leyden Museum.

### 4. DENDROPHIS CAUDOLINEATA.

*Ahætulla caudolineata, Gray, Ind. Zool. pl. ; Cantor, Catal. p. 85. Dendrophis octo-lineata, Dum. & Bibr. 201.*

Brownish green: on the hinder part of the body and on the tail eight black longitudinal bands, the dorsal of which are much narrower than the four laterals. Scales of the vertebral row not much larger than the others. Head high, rather short.

- a. Adult. Borneo. Presented by Sir James Brooke.



- b.* Adult. Borneo. From Mr. Lowe's Collection.
- c.* Adult: injured. Borneo. Presented by Sir James Brooke.
- d.* Adult: very bad state. India. From Mr. Warwick's Collection.
- e.* Adult. Sine patria. Presented by Captain Sir E. Belcher.
- f.* Adult. Sine patria.

### 5. AHÆTULLA, Gray.

*Dendrophidæ* with keeled or smooth scales; those of the medial dorsal row not larger than the others, lanceolate, equilateral. Posterior maxillary teeth longest, smooth. Sides of abdomen slightly keeled. Africa; South America.

Ahætulla, sp., Gray, *Syn.* p. 16. Leptophis, sp., Bell, *Zool. Journ.* 1825, p. 329. Leptophis et Uromacer, *Dum. & Bibr.* vii. pp. 529, 719. Dendrophis, sp., *Schleg.*, Boie. Leptophis, *Wagl. Nat. Syst. der Amph.* p. 183. Coluber, sp., *Natrix*, sp., *auct. prior.*

#### 1. AHÆTULLA SMARAGDINA.

*Dendrophis smaragdinus*, Boie, *Isis*, 1827, p. 547; *Schleg. Ess.* ii. p. 237. *Leptophis smaragdinus*, *Dum. & Bibr.* vii. p. 537. *Leptophis gracilis*, *Hallowell, Proc. Ac. Nat. Sc. Philad.* ii. p. 60, and vii. p. 100.

Scales keeled; upper labials nine; posterior oculars two. Uniform bluish green, paler beneath. Young specimens exhibit longitudinal series of small, round white spots.

- a.* Adult. Mediterranean. From the Haslar Collection.
- b.* Half-grown. Ashantee. From the Leyden Museum.
- c.* Young. Ashantee. From the Leyden Museum.
- d.* Adult. Niger Expedition. From Mr. Fraser's Collection.
- e.* Adult. Coast of Guinea. From the Leyden Museum.
- f.* Adult: injured. West Africa. From Mr. Rich's Collection.
- g.* Adult. West Africa. From Mr. Rich's Collection.
- h.* Half-grown: bad state. West Africa. From Mr. Rich's Collection.
- i.* Half-grown: bad state. West Africa. From Mr. Raddon's Collection.
- k.* Half-grown: head injured. West Africa. From Mr. Raddon's Collection.
- l.* Adult. —? Purchased at Liverpool.
- m.* Adult. Africa. From the Leyden Museum.
- n.* Adult. Africa. From the Haslar Collection.
- o.* Half-grown. Africa.
- p.* Adult. Africa. From the Haslar Collection.

2. *AHÆTULLA IRREGULARIS*.

*Coluber irregularis*, Leach, in Bowdich, *Ashantee*, App. p. 494.  
*Dendrophis chenonii*, Reinhardt, *Kongl. Danske Afhandl.* x. t. 1. f. 13, 14. *Dendrophis albo-variata*, Smith, *Ill. of S. Afr.* pl. 64. f. 3, 3a, 3b, pl. 65. *Leptophis chenonii*, Dum. & Bibr. vii. p. 545.

Head not much elongate, not depressed; above bluish green, scales on the outer edge white, beneath pale; scales smooth, in fifteen rows; anal bifid.

- a. Adult. Fantee (Africa). Presented by T. E. Bowdich, Esq. Original specimen of Dr. Leach's description.
- b. Young. Gold Coast. Presented by W. F. Evans, Esq. Coloured like *Dendrophis semivariegata*, Smith, *l. c.* pl. 60.
- c. Adult. Gambia. Presented by J. Mitchell, Esq.
- d. Adult: injured. West Africa. From Mr. Rich's Collection.
- e. Adult. West Africa. From Mr. Rich's Collection.
- f. Adult. West Africa. From Mr. Rich's Collection.
- g. Adult. West Africa.
- h, i. Foetus in a bad state. West Africa. Presented by Mr. Raddon.
- k. Adult: not good state. South Africa.
- l. Adult. South Africa.
- m, n. Half-grown. Cape of Good Hope. From Mr. Argent's Collection.
- o. Adult female. Africa. From Mr. Argent's Collection.
- p. Adult: very bad state. Africa. From the Berlin Museum as *Col. krebsii*.
- q, r. Adult. Africa. From Mr. Argent's Collection.
- s. Adult. Africa. From the Haslar Collection.
- t. Nearly adult: injured. Africa.
- u. Nearly adult. Africa.
- v. Half-grown. Africa. From the Leyden Museum.
- w. Half-grown: head injured. Africa. From Mr. Argent's Collection.
- x, y. Half-grown. Africa. From Mr. Argent's Collection.
- z. Adult. Africa. From the Collection of the Zoological Society.
- a. Adult. Port Natal. Presented by the Rev. H. Calloway.

Var. *Dendrophis natalensis*, Smith, *l. c.* pl. 64. Only two large temporal shields.—The size of the eye appears to be liable to some variation: specimens belonging to Smith's *D. albo-variata* are sometimes provided with larger eyes, as those of his *D. natalensis* have sometimes smaller ones.

- β. Adult. Port Natal. Presented by the Rev. H. Calloway.
- γ, δ. Adult: injured. Africa.
- ε. Adult. Africa. From Mr. Argent's Collection.

### 3. AHÆTULLA LIOCERCUS.

*Seba, Thes.* ii. t. 20. *Coluber ahætulla*, *Linn. Mus. Ad. Fried.* pl. 22. f. 3, and *Syst. Nat.* p. 387. *Natrix ahætulla*, *Laur. Syn. Rept.* p. 79. *Boiga*, *Lacép. Quadr. Ovip.* ii. pl. 11. f. 1; *Latreille. Hist. des Rept.* iv. p. 112; *Shaw, Gen. Zool.* iii. p. 550; *Daud. Rept.* vii. pl. 84. *Coluber richardii*, *Bory de St. Vincent, Ann. de Sci. Nat.* 1824, p. 408. *Coluber liocercus*, *Wied, Beitr.* p. 265, and *Abbildg.* xiv. pl. 4. *Leptophis ahætulla*, *Bell, Zool. Journ.* ii. p. 328. *Dendrophis liocercus*, *Boie, Isis*, 1827, p. 544. *Ahætulla liocercus*, *Gray, Synops. Rept.* 1830. *Wagler, Syst. Amph.* p. 183; *Schlegel, Essai*, pl. 9. f. 1, 2; *Dum. & Bibr.* vii. p. 533.

Keeled scales only on the back of the body; loreal shield none.

*a, b.* Adult: bad state. Demerara. Presented by Lieut. Friend.  
*c, d.* Adult: injured. Demerara. From Mr. Snellgrove's Collection.

*e.* Half-grown. Demerara. Presented by Lieut. Friend.

*f.* Half-grown. Demerara. Presented by Dr. Hancock.

*g.* Adult. Brazil. Presented by Lord Stuart.

*h.* Many specimens. Berbice.

*i.* Adult. Bahia. Presented by Mr. Ker.

*k.* Adult. Tobago. Presented by Alfred Ludlam, Esq.

*l.* Young: badly preserved. St. Lucia. Presented by the Zoological Society.

*m.* Adult female. West Indies. Presented by Miss Saul.

*n.* Adult. America.

*o.* Adult. America.

*p.* Adult. America.

*q.* Adult. America.

*r.* Adult. America. Presented by — Tennant, Esq.

*s.* Adult: discoloured. America.

*t.* Adult. America. Presented by Mrs. Mauger.

*u.* Half-grown. America.

*v.* Half-grown: dried. America.

*w.* Adult. America. From the Haslar Collection.

*x.* Adult: discoloured. America. From Mr. Bartlett's Collection.

*y.* Adult: bad state. America. Presented by the College of Surgeons.

*z.* Adult. America. Old Collection.

*a.* Adult: bad state. Guayaquil.

*β.* Half-grown: injured. East Indies. Old Collection, from Dr. Russell.

4. *AHÆTULLA MEXICANA.*

*Leptophis mexicana*, *Dum. & Bibr.* vii. p. 53.

Like *A. liocercus*, but one loreal shield. Scales keeled, two post-oculars, eight upper labial shields. Bright blue-green iridescent, white beneath; a black streak across the eyes and cheeks.

*a.* Many specimens. Mexico. From Mr. Warwick's Collection.

*b.* Adult. Mexico. From Hugo Finck's Collection.

*c.* Young. Mexico.

*d.* Adult. Belize. Presented by J. Smith, Esq.

*e.* Adult. Honduras.

*f.* Adult. Honduras.

*g.* Young. Honduras.

*h.* Adult: injured. America.

*i, k.* Adult. America.

5. *AHÆTULLA CATESBYI.*

*Dendrophis catesbyi*, *Schleg. Ess.* ii. p. 226. *Uromacer catesbyi*, *Dum. & Bibr.* vii. p. 721.

Head depressed, elongate, rounded in front; above uniform bluish green without any spot, beneath pale, an obsolete whitish band along the sides of abdomen; scales smooth, in seventeen rows; anal bifid.

*a.* Adult. Hayti. Presented by the Zoological Society.

*b.* Adult: injured. St. Domingo. From Mr. Cuming's Collection.

*c.* Half-grown. St. Domingo. From the Leyden Museum.

*d.* Half-grown. Barbadoes. From Mr. Cuming's Collection.

*e.* Adult. America. From Mr. Mather's Collection.

6. *AHÆTULLA OXYRHYNCHA.*

*Uromacer oxyrhynchus*, *Dum. & Bibr.* p. 722. pl. 83. f. 1.

Head depressed, elongate, pointed in front; above uniform bluish green without any spot, beneath pale, an obsolete whitish band along the sides of abdomen; scales smooth, in nineteen rows; anal bifid.

*a.* Adult: in good state. St. Domingo. From Mr. Cuming's Collection.

Although the specimen described by Duméril and Bibron is said to be a native of Africa, and although our specimen has the anterior frontals horizontally divided into two (which may be considered as an individual peculiarity), we have no doubt that both specimens belong to one and the same species. It is closely allied to the preceding species, having the very same lanceolate, not very imbricate, sharply pointed, rhomboid scales; it has the



hinder maxillary teeth longer and rather distant from the others. On the other hand it is a connecting link between the *Dendrophidæ* and the family of *Dryiophidæ*, having the pointed snout and the excessively slender habit of the latter. Its pupil is round.

### Fam. IX. DRYIOPHIDÆ.

Body generally excessively slender and elongate; head very narrow and long, with a thinly-pointed snout, sometimes ending in a flexible appendix; upper jaw much longer than lower; rostral shield always protruding, sometimes peculiarly modified; mouth deeply cleft; nostril lateral, small; eye rather small, with an ovoid or linear, horizontal pupil (except in *Dryiophis acuminata*, having a round one); one (*Langaha* two) anterior, one to two (*Langaha* four) posterior orbitals; shields of crown regular elongate; scales very narrow, imbricate, scarce, in fifteen or seventeen rows (*Langaha* nineteen); those of the vertebral row generally broader, triangular; ventral plates without or with obsolete keels; subcaudals two-rowed. Maxillary teeth sometimes (in the Asiatic species) unequal, the fourth, fifth or sixth longer; the hinder one always longest and grooved.

*Dryiophis*, *Boie*, *Isis*, 1827, p. 520; *Schleg. Ess.* ii. p. 241. *Oxycéphaliens*, *Dum. & Bibr.* vii. p. 797.

#### *Synopsis of the Genera.*

1. DRYIOPHIS. Muzzle pointed; rostral solid.
2. PASSERITA. Muzzle ending in a flexible appendage, not longer than one-third of head.
3. LANGAHA. Muzzle ending in a flexible appendage, longer than one-third of head, covered with scales.

#### 1. DRYIOPHIS, *Boie*.

Head much elongated, pointed in front, but the front part solid, not moveable.

Tragops et Oxybelis, *Dum. & Bibr.* pp. 813 & 822. *Dryiophis*, sp., *Boie*, *Isis*, 1827, p. 520; *Cuv. Règ. Anim.*; *Schleg. Ess.* ii. p. 241. *Oxybelis*, *Dryiophis* et *Tragops*, sp., *Wagl. Nat. Syst. der Amph.* pp. 183 & 184. *Dryinus*, sp., *Merr. Tent.* p. 136; *Bell, Zool. Journ.* 1825. *Natrix*, sp., *Coluber*, sp., *auct. prior*.

#### 1. DRYIOPHIS ARGENTEA.

*Coluber argenteus*, *Daud. Hist. Rept.* vi. p. 336. *Natrix argentata*, *Merr. Tent.* p. 116. *Dryiophis argentea*, *Schleg. Ess.* t. 10. f. 14, 15. *Oxybelis argenteus*, *Dum. & Bibr.* vii. p. 815.

Scales smooth. Above grey with four, beneath white with three longitudinal blue (in spirits blackish-ash) bands.

*a.* Adult. Cayenne.

## 2. DRYIOPHIS ACUMINATA.

*Coluber acuminatus*, Wied, *Abbildg.* Lief. 14. t. 1, and *Beitr.* p. 322. *Dryinus æneus*, Wagl. *Serp. Bras.* t. 3; *Boie, Isis*, 1827, p. 546. *Dryinus auratus*, Bell, *Zool. Journ.* ii. pl. 12. *Dryiophis æneus*, Cuv. *Règne Anim.* *Oxybelis æneus*, Wagl. *Syst. Amph.* p. 159; *Dum. & Bibr.* vii. p. 819. *Dryiophis aurata*, Schleg. *Ess.* pl. 10. f. 16-18.

Scales smooth; loreal shield none. Light brown, iridescent, punctulated with black.

*a.* Adult: injured. Brazil.

*b.* Adult. Brazil? Presented by T. Bell, Esq.

*c.* Adult: greatly injured. Maracaibo. From Mr. Lowe's Collection.

*d, e.* Adult. Para. Presented by R. Graham, Esq.

*f.* Adult: injured. Honduras.

*g.* Adult. Honduras.

*h.* Adult. Carthagená.

*i.* Adult. Carthagená.

*k.* Adult. Venezuela. From Mr. Dyson's Collection.

*l.* Half-grown. Mexico.

*m.* Adult: head injured. West Indies? From Mr. Scrivener's Collection.

*n.* Half-grown: bad state. America.

*o.* Adult: discoloured. America. Presented by the College of Surgeons.

## 3. DRYIOPHIS KIRTLANDII.

*Leptophis kirtlandii*, Hallow. *Proc. Ac. Philad.* 1844, p. 62, and 1854, p. 100. *Oxybelis lecomtei*, *Dum. & Bibr.* vii. p. 821. *Oxybelis kirtlandii*, Hallow. *l. c.* 1857, p. 59. *Oxybelis violacea*, Fischer, *Abhdlg. aus dem Gebiete der Naturw. Hambg.* 1856, p. 91 (founded upon a specimen with two loreals, and forming not even a variety, see spec. *f*): the lateral shields of head in *Dryiophis* are very often found separated into two or three, or two separate shields are united. As to the coloration, Fischer does not appear to have understood the "*vert-bronzé*" in Duméril's description. All our specimens exhibit the same brownish ground-colour, similar to that of *D. acuminata*).

Scales on the back keeled; rostral shield evidently produced backwards; generally two loreals; eight upper labials, the fourth

and fifth touching the eye (two lower orbitals). Light brown, iridescent, punctulated with black; on the anterior part of back some more or less conspicuous black cross bands. No longitudinal line.

- a.* Adult. Gaboon. From Mr. Cuming's Collection.
- b.* Adult. Fantee (Africa).
- c.* Adult: bad state. Ashantee.
- d.* Adult. Africa. Niger Expedition.
- e.* Adult. West Africa. From Mr. Rich's Collection.
- f.* Adult. West Africa. Only one loreal.
- g.* Adult: injured. West Africa.
- h.* Half-grown: discoloured. West Africa. From the Haslar Collection.

#### 4. DRYIOPHIS TROPIDOCOCCYX.

Body and tail rather stout, muzzle not much elongated. Scales smooth, only those on the coccygeal region strongly keeled, those on the vertebral line not larger; upper labials eight, the third and fourth touching the eye (two lower orbitals); loreal none; rostral far produced backwards. Brownish green (without epidermis, green); a whitish line at the edges of abdomen.

- a.* Adult. Madras. Presented by J. C. Jerdon, Esq.
- b-f.* Adult and half-grown. India. Presented by Sir J. MacGregor.
- g-i.* Adult and half-grown. East Indies. From the Zoological Society's Collection.

*Description.*—This particular species, having the habit and the physiognomy of *Psammophis*, but provided with the system of coloration and with the pupil of *Dryiophis*, forms a connecting link between both genera. As to the dentition, it quite agrees with other species of *Dryiophis*, having about the fifth of the anterior maxillary teeth longer and larger than the rest. (Duméril is wrong in describing, in his family of *Oxycéphaliens*, these teeth as equal.) The scales have some important peculiarities: there is, as in *Psammophis*, no vertebral row of larger scales; those on the sides are not very much elongated or imbricate; they are smooth, except some above the anus (the coccygeal region of higher animals), which are provided with rather strong keels. Rostral shield produced behind to the surface of head, and pointed behind; anterior frontals small and bent to the sides, replacing a posterior nasal shield and touching the second upper labial; posterior frontals large, rounded behind, bent on the side, replacing a loreal shield and touching the same labial; anterior ocular single, large, touching the vertebral, deeply grooved before the eye, and with the superciliary far projecting over the



side of head; one posterior ocular; eight upper labials, the fifth and sixth forming the lower edge of orbit; one single nasal, pierced by the nostril behind; four to five temporal shields. Scales in fifteen rows. Coloration as above described. Length of head  $\frac{3}{4}$ "; length of tail  $5\frac{1}{2}$ "; total length 2'.

### 5. DRYIOPHIS FULGIDA.

*Catesby*, *Carol.* t. 47. *Natrix flagelliformis*, *Laurenti*, *Syn.* p. 79. *Coluber mycterizans*, *Shaw*, *Gen. Zool.* iii. p. 546. *Coluber fulgidus*, *Daud.* *Hist. Rept.* vi. p. 532. t. 80, not good. *Dryiophis fulgidus*, *Boie*, *Isis*, 1827, p. 546; *Wagl.* *Icones*, t. 10, and *Nat. Syst. Amph.* p. 184. *Dryiophis catesbyi*, *Schleg.* *Ess.* ii. p. 252, and *Abbildg.* t. 14. f. 3-6; *Fitzinger*, *Syst. Rept.* p. 27. *Oxybelis fulgidus*, *Dum. & Bibr.* vii. p. 817.

\* Scales of the back keeled. Above uniform green (in spirits blue), belly paler; a yellow (white) lateral line at the edges of the abdomen. Upper labials nine, the fourth, fifth and sixth touching the eye (three lower orbitals); loreal none.

a. Adult. Para. Presented by R. Graham, Esq.

b. Adult. Para. From Mr. S. Stevens's Collection.

c. Adult: injured. S. America. From Mr. Mather's Collection.

d. Adult: injured. America.

e. Adult: bleached. America. Old Collection.

### 6. DRYIOPHIS FRONTICINCTA.

Scales of the back keeled; upper labials seven or eight, generally only one touching the eye (one lower orbital); anterior frontals entirely surrounded in front by the nasals, being in direct contact one with the other; two loreals. Above uniform green (in spirits blue); belly paler with a whitish lateral line.

a-c. West Indies. From Mr. Luna's Collection.

Head moderate; muzzle rather broad, suddenly pointed, moderately elongate. Rostral shield oblique, flat, just reaching the surface of head, its outline elliptical; nasal single, much elongated, behind pointed and pierced by the nostril, in the middle curved, in front broad, and in direct contact with that of the other side, so as to separate the rostral from the anterior frontals, forming a sort of frontlet (*fronticincta*). Anterior frontals rectangular, triangular, forming together an equilateral triangle; lateral sides of vertical shield very concave, superciliary subsphenoidal; from the eye to the nostril a very deep canaliculated groove. Two loreals; seven or eight upper labials; some of the anteriors are always horizontally divided into two: in one specimen



the two foremost are simple, the third, fourth and fifth divided, the sixth very long, forming the lower edge of orbit, the seventh and eighth elongate; temporal shields scale-like. Scales (on the back) keeled, on the sides elongate, very imbricate, those of the vertebral and outer rows larger, rhomboid; anal bifid. Anterior teeth in both jaws longer and in a rather widely interrupted series. Habit as generally in *Dryiophis*; colours as above described. Length of head  $1\frac{1}{8}$ " ; length of tail  $10\frac{1}{2}$ " ; total length 3'.

## 7. DRYIOPHIS PRASINA.

*Dryiophis prasina*, *Reinwardt, Tijdschrift voor Natuurkundige*, p. ; *Boie, Isis*, 1827, p. 545; *Schleg. Ess.* pl. 10. f. 9-13, and *Abbildg.* t. 8. f. 1-6. *Dryinus nasutus*, *Bell, Zool. Journ.* ii. p. 327. *Tragops nasutus*, *Wagl. Syst. Amph.* p. 184. *Tragops prasinus*, *Dum. & Bibr.* vii. p. 824.

Scales smooth; rostral shield above with a rather sharp, convex ridge, not produced backwards; fourth, fifth and sixth upper labials reaching the orbit; one to three loreal shields. Above green (in spirits bluish); on the sides a well-defined yellow or white longitudinal stripe.

- a. Adult. China.
- b. Adult. Bengal. Presented by General Hardwicke.
- c. Adult: bleached. Bengal. Presented by General Hardwicke.
- d. Adult. Mergui. Presented by Prof. Oldham.
- e. Adult. Sumatra. From Sir S. Raffles's Collection.
- f. Adult: bad state. Java. Presented by J. Bowring, Esq.
- g. Adult. Borneo. From Mr. Lowe's Collection.
- h. Adult. Borneo. Presented by Captain Sir E. Belcher.
- i. Adult: fine specimen. Borneo. Presented by W. Winstone, Esq.
- k. Adult. Borneo. Presented by Captain Sir E. Belcher.
- l. Half-grown. Borneo. From Mr. Lowe's Collection.
- m. Adult. Celebes. From the Leyden Museum.
- n. Adult. Philippines. From Mr. Cuming's Collection.
- o. Half-grown. Philippines. From Mr. Cuming's Collection.
- p. Adult. India.
- q. Adult: bad state. India. Presented by Captain Stafford.
- r-t. Adult: bad state. India. From Mr. Warwick's Collection.
- u. Adult. India. Presented by Sir James MacGregor.
- v. Half-grown. Carthagera. From Paris as *D. frigidus* (?).
- w. Half-grown. West Indies. From Mr. Luna's Collection.
- x-z. Adult. East Indies. Presented by Mrs. John Crosley.
- a. Adult: bleached. East Indies. Old Collection.
- β. Half-grown. East Indies. From the Haslar Collection.

- γ. Half-grown: has been dried. East Indies. From the Haslar Collection.
- δ. Half-grown: not good state. East Indies. Presented by Captain Sir E. Belcher.
- ε, ζ. Half-grown: bad state. East Indies. Presented by Sir J. MacGregor.
- η. Half-grown. East Indies.

Var. *xanthozonia*. Red-brown.

*Russell, Ind. Serp.* ii. pl. 24. *Dryiophis xanthozonia*, (*Kuhl*) *Boie, Isis*, 1827, p. 545. *Tragops xanthozonius*, *Wagl. Syst. Amph.* p. 184; *Dum. & Bibr.* vii. p. 826.

θ. Adult. Philippines. From Mr. Cuming's Collection.

ι. Half-grown: bad state. Philippines. From Mr. Cuming's Collection.

## 2. PASSERITA, Gray.

Body and tail very thin and long, sides of abdomen rounded; head much elongated; snout with a moveable, acute appendage, shorter than one-third of the head; pupil linear, horizontal; teeth in the upper jaw of unequal length, some in the middle longer; posterior teeth furrowed. Scales smooth, those of the sides linear, adpressed, those of the vertebral series a little larger, triangular. India.

*Herpetotragus*, *Fitzinger, Syst. Rept.* p. 27. *Tragops*, *Wagl. Syst. Amph.* p. 184. *Dryiophis*, sp., *Boie, Cuvier, Schlegel. Dryinus*, sp., *Bell, Dum. & Bibr.* *Passerita*, *Gray, Synopsis*, p. 16. *Coluber*, *auct. prior.*

## 1. PASSERITA MYCTERIZANS.

? *Coluber mycterizans*, *Linn. Mus. Ad. Fried.* p. 28; *Lacép. Quadr. Ovip.* ii. pl. 4. f. 2; *Bonnat. Ophiol. Encycl. Meth.* pl. 30. f. 62; *Russell, Ind. Serp.* t. 12, 13. *Coluber mycterizans*, *Daud. Hist. Rept.* vii. pl. 81. *Dryinus nasutus*, *Merr. Tent.* p. 136 (not *Bell*). *Passerita mycterizans*, *Gray, Ann. Phil.* x. p. 208. *Dryinus oxyrhynchus*, *Bell, Zool. Journ.* 1821, p. 325. *Dryiophis nasutus* and *D. pavoninus*, *Boie, Isis*, 1827, pp. 520, 543; *Cuv. Règne Anim.*; *Guérin, Icon. Rept.* t. 22. f. 2. *Tragops nasutus* and *T. pavoninus*, *Wagl. Syst. der Amph.* p. 184; *Schleg. Ess.* t. 10. f. 1-5. *Herpetotragus nasutus*, *Fitz. Syst. Rept.* p. 27; *Dum. & Bibr.* vii. p. 809.

Coloration variable, generally above green (in spirits bluish), beneath paler, on the sides a well-defined yellow or white longitudinal stripe.

- a. Adult. Ceylon.
  - b. Adult. Ceylon.
  - c. Adult. Ceylon. From Mr. Cuming's Collection.
  - d. Adult: not good state. Ceylon. Presented by R. Templeton, Esq.
  - e-g. Adult. Ceylon. Presented by R. Templeton, Esq.
  - h, i. Adult. Ceylon. From Mr. Cuming's Collection.
- The specimens which come from Ceylon measure only two to three feet in length; they do not appear to grow to the same length as those coming from the other parts of the East Indies.
- k-o. Adult and young. Madras. Presented by Walter Elliott, Esq.
  - p. Adult. Madras. Presented by J. C. Jerdon, Esq.
  - q. Nearly adult. Madras. Presented by J. E. J. Boileau, Esq.
  - r. Half-grown. Siam. Presented by J. Bowring, Esq.
  - s. Adult: bad state. India. From Mr. Warwick's Collection.
  - t. Adult: injured. India.
  - u. Adult. India.
  - v. Adult. India. Presented by W. C. Masters, Esq.
  - w. Adult. India. Old Collection.
  - x. Adult: not good state. India.
  - y. Adult: not good state. India. Purchased.
  - z. Half-grown. India. Presented by W. Masters, Esq.
  - a-γ. Adult. India. From the Haslar Collection.
  - δ. Adult. India. From Mr. Mather's Collection.
  - ε. Adult: not good state. India.
  - ζ. Adult: not good state. India. Presented by Mr. Nimmo.
  - η. Half-grown. India. Presented by Lady Harvey.
  - θ. Adult: not good state. India. Presented by Mr. Bowerbank.
  - ι. Young. Carthagen (?). From Paris.

Var. *Dryinus fuscus*: greyish brown, marbled with purple, without longitudinal stripe.

- κ. Adult: has been dried. Ceylon. From Mr. Cuming's Collection.—Muzzle rather long; whole length about  $2\frac{1}{2}$  feet.
- λ. Adult. India.

### 3. LANGAHA, *Bruguère*.

*Dryiophides* with an excessively elongated muzzle; the appendage fleshy, covered with small scales, forming about one-third of the total length of head. Scales keeled. Madagascar.

Langaha, *Bruguère*, *Journ. de Phys.* 1784, p. 132; *Schneider*, *Hist. Amph.* i. p. 357; *Shaw*, *Gen. Zool.* iii. p. 571; *Cuvier*,



*Règne Anim.*; *Merr. Tent.* p. 157; *Gray, Synops.* p. 15; *Dum. & Bibr.* vii. p. 802. *Xiphorhynchus*, *Wagler, Nat. Syst. der Amph.* p. 184. *Dryiophis*, sp., *Schleg. Ess.* ii. p. 248.

### 1. LANGAHA NASUTA.

*Langaha*, *Bruguère, Journ. Phys.* xxiv. pl. 2; *Lacép. Hist. Quadr. Ovip. Serp.* ii. pl. 22. f. 1; *Bonnat. Ophiol.* pl. 35. f. 4; *Schneid. Hist. Amph.* i. p. 357 (*Amphisbæna langaha*); *Dum. & Bibr.* vii. p. 803. *Langaha nasuta*, *Shaw, Naturalist's Misc.* xxii. t. 968, and *Zool.* iii. t. 127. *Langaha madagascariensis*, *Latr. Rept.* iv. 87. f. 1; *Daud. Rept.* vii. p. 240; *Cuv. Règne Anim.*; *Merr. Text.* p. 157. *Dryiophis langaha*, *Schleg. Ess.* ii. p. 248, and *Abbildg.* pl. 7. pl. 8. f. 7-9.

Nasal appendage laminal, not dentated. Reddish brown.

a. Adult. Madagascar.

b. Half-grown. Madagascar. From the Paris Museum.

### 2. LANGAHA CRISTA-GALLI.

*Langaha crista-galli*, *Dum. & Bibr.* p. 806. pl. 71.

Nasal appendage dentated. Madagascar.

## Fam. X. DIPSADIDÆ.

Body much compressed, much elongate or moderate; tail tapering, slender or short; head short, generally very broad behind, triangular, very distinct from neck, sometimes high, quadrangular or rounded; eye large, sometimes very large, pupil generally elliptical. Shields of crown truncated; loreal sometimes wanting, never more than two anterior and three posterior oculars; nostril lateral. Scales elongate, generally smooth and those of the vertebral line larger; subcaudals in some species entire. Generally posterior maxillary teeth grooved, in a few species longer anterior maxillary teeth and grooved posterior ones, in a few all equal, and in some longer anterior palatine teeth: never longer anterior teeth in the upper jaw without grooved ones behind.

*Dipsas*, *Schlegel, Ess.* ii. p. 257. *Paréasiens*, gg., *Leptognathiens*, gg., *Opetiodon*, *Dipsadiens*, *Dum. & Bibr.*

### *Synopsis of the Genera.*

1. **THAMNODYNASTES.** Head moderate, not very distinct from neck; scales of the vertebral line not larger; scales in seventeen or nineteen rows. South America.



2. **LEPTODEIRA.** Head triangular, depressed, broad, distinct from neck; rostral moderate; one anterior ocular; loreal not reaching the orbit. Scales of the vertebral line not larger. S. America; S. Africa.
3. **EUDIPSAS.** Head triangular, depressed; scales of the vertebral line larger; anterior palatine and maxillary teeth longer than the following. South America; East Indian Islands.
4. **DIPSAS.** Head triangular, depressed; scales moderately imbricate; those of the vertebral line larger; subcaudals two-rowed; no longer anterior teeth. Tropical parts of the globe.
5. **DIPSADOMORPHUS.** Scales very much imbricate. East Indies; Mexico.
6. **RHINOBOOTHRYUM.** Rostral very large, rounded, far produced backwards. South America.
7. **LEPTOGNATHUS.** Head quadrangular, not depressed; scales smooth, those of the vertebral line larger; teeth equal. Warmer parts of America. (India.)
8. **TROPIDODIPSAS.** Head subquadrangular, broader behind, distinct from neck; scales keeled. Mexico.
9. **HEMIDIPSAS.** Head triangular, broad, distinct from neck; rostral moderate; loreal united with lower ocular; a second upper ante-ocular; scales of the vertebral line not larger. South America (?).
10. **DIPSADOBOA.** Head triangular, depressed; subcaudals entire. Central America; West Africa.
11. **AMBLYCEPHALUS.** Head high, rounded; subcaudals entire. Java.
12. **PAREAS.** Head rounded, snout exceedingly short; subcaudals bifid; anterior palatine and mandibular teeth longest. Java.

1. **THAMNODYNASTES**, *Wagler.*

*Dipsas* with body and tail of moderate slenderness; head rather elongate, depressed, not very distinct from neck; vertical narrow; one loreal; scales lanceolate, moderate, in seventeen or nineteen rows; those of the medial dorsal row not larger, similar to the others. Anal and subcaudals bifid. Pupil subelliptical,

eyes moderate ; posterior maxillary tooth longer and furrowed ; the anterior teeth nearly equal in length. South America.

*Thamnodynastes*, *Wagler, Nat. Syst. der Amph.* p. 182. *Dryophylax*, *Wagler, l. c.* p. 181. *Dipsas*, sp., *Schlegel, Dum. & Bibr.* *Tropidonotus*, *Natrix*, *Coluber*, sp., *auct. prior.*

## 1. THAMNODYNASTES NATTERERI.

*Coluber nattereri*, *Mikan, Delect.*; *Wied, Beitr.* p. 277, and *Abbildg.* iv. t. 4 ; *Fitz. Neue Class.* p. 58. *Tropidonotus nattereri*, *Boie, Isis*, 1827, p. 535. *Dryophylax nattereri*, *Wagl. Syst. Amph.* p. 181. *Dipsas nattereri*, *Schleg. Ess.* ii. p. 290 ; *Dum. & Bibr.* vii. p. 1149.

Like *Th. punctatissimus*, but scales keeled, and tail forming not quite a quarter of the total length.

a. Adult. Brazil.

b. Adult : not good state. Brazil. From Dr. Gardiner's Collection.

c. Adult. Amazon. From Mr. Bates's Collection.

d. Adult. Brazil. From Dr. Gardiner's Collection.

e, f. Adult. Brazil. Presented by Dr. Andrew Smith.

g. Adult. Rio Janeiro. Presented by A. Fry, Esq.

h. Adult. Rio Janeiro. Presented by A. Fry, Esq.

i. Adult. Tejuku. Presented by Robert Bennett, Esq.

k. Adult. Tejuku. Presented by Robert Bennett, Esq.

l. Adult : bad state. Demerara.

m. Many specimens. Demerara. Presented by Dr. Hancock.

n-p. Adult : not good state. Demerara. Presented by Dr. Hancock.

q. Adult. America.

## 2. THAMNODYNASTES PUNCTATISSIMUS.

*Natrix punctatissima*, *Wagler & Spix, Nov. Spec. Serp.* t. 14. f. 1. *Thamnodynastes punctatissimus*, *Wagler, Nat. Syst. der Amph.* p. 182 ; *Fitz. Syst. Rept.* p. 27. *Dipsas punctatissima*, *Schleg. Ess.* pl. 11. f. 33, 34 ; *Dum. & Bibr.* vii. p. 1151.

Scales smooth ; tail forming nearly one-third of the total length. Belly with four longitudinal lines, formed by very minute points, and confluent under the tail.

a. Adult. Brazil. (Anal bifid.)

b. Adult. America. From Mr. Argent's Collection. (Anal entire.)

## 2. LEPTODEIRA, *Fitzinger*.

*Dipsas* with a not much compressed or rounded body of moderate length; tail moderate; head broad, depressed, flat above, distinct from neck; shields of head regular, one loreal, one anterior, two posterior oculars; scales moderate (in nineteen to twenty-three rows), not very imbricate, in not very oblique rows; those on the vertebral line equal, not larger than those of the other dorsal rows; subcaudals two-rowed. Pupil subelliptical, erect; eyes moderate; nostril between two shields. Hinder maxillary teeth longest, grooved; the anterior ones equal in length. South America; Africa.

*Dipsas*, sp., and *Heterurus*, sp., *Dum. & Bibr.* vii. pp. 1141 & 1170. *Leptodeira* et *Crotaphopeltis*, *Fitz. Syst. Rept.* p. 27. *Dipsas*, sp., and *Coronella*, sp., *Schleg. Ess.* ii. pp. 294 & 72. *Lycodon*, sp., *Boie, Isis*, 1827, pp. 522 & 527. *Natrix*, sp., *Coluber*, sp., *auct. prior*.

### 1. LEPTODEIRA RUFESCENS.

*Hotamboeia*, *Seba*, i. 33. 6; *Bonnat. Ophiol.* p. 11. *Coronella hotamboeia*, *Laur. Synopsis*, p. 85. *Coluber hitamboeia*, *Gm. Syst. Nat.* i. p. 1113. *Coluber rufescens*, *Gm. l. c.* p. 1094; *Daud. Rept.* vii. p. 110; *Merr. Tent.* p. 95. *Coluber bicolor*, *Leach in Bowdich, Ashantee, App.* p. 493. *Lycodon rufescens*, *Boie, Isis*, 1827, p. 522. *Ophis heterurus* et *O. albocinctus*, *Duvernoy, Ann. Sc. Nat.* 1833, pl. 1 & 2. *Coronella rufescens*, *Schleg. Ess.* pl. 2. f. 16, 17. *Crotaphopeltis rufescens*, *Fitz. Syst. Rept.* p. 27; *Smith, Ill. of S. Afr. App.* p. 18. *Heterurus rufescens*, *Dum. & Bibr.* p. 1170.

Anal entire. Scales in nineteen rows. Lead-coloured, some scales white-edged, forming together very narrow, rather irregular cross bands; cheeks and neck black. (Subcaudals in all specimens regularly two-rowed.)

*a.* Adult. Cape of Good Hope. Presented by the Earl of Derby.

*b.* Adult. Cape of Good Hope. Presented by Dr. Dyce.

*c.* Adult: head injured. South Africa.

*d.* Half-grown. South Africa.

*e.* Adult. West Africa. From Mr. Rich's Collection.

*f.* Adult: head injured. West Africa. From Mr. Rich's Collection.

*g.* Adult. West Africa. From Mr. Fraser's Collection.

*h.* Half-grown. Gold Coast. Presented by W. F. Evans, Esq.

*i.* Adult. Ashantee. From the Leyden Museum.

*k.* Adult. Fantee. Presented by T. E. Bowdich, Esq. (the type of *C. bicolor*).



- l. Adult. Gambia. Presented by J. Mitchell, Esq.
- m, n. Half-grown. Gambia. Presented by J. Mitchell, Esq.
- o, p. Adult. Africa. From Mr. Argent's Collection.
- q. Adult. Africa. From Mr. Argent's Collection.
- r. Adult. Africa. From Mr. Haslar's Collection.
- s. Adult. Africa. Presented by the College of Surgeons.
- t-v. Half-grown: not good state. Africa.
- w. Half-grown: injured. Africa. From Mr. Argent's Collection.
- x. Adult. Africa.

## 2. LEPTODEIRA ANNULATA.

*Seba*, ii. 13. 4, 17. 4, 41. 3, 52. 1, 71. 3; *Scheuchz.* t. 652. f. 2. *Coluber annulatus*, *Linn. Mus. Ad. Fried.* t. 8. f. 2, and *Syst. Nat.* i. p. 386; *Shaw, Zool.* iii. p. 490; *Latr. Rept.* iv. p. 127; *Daud. Rept.* vi. p. 369; *Merr. Tent.* p. 111; *Kuhl, Beitr. zur Zool.* p. 85; *Knorr, Delic. Phys. Surin.* 1767, ii. pl. 6. f. 2; *Daubent. Encycl. Meth.* p. 591; *Merr. Beitr.* i. t. 11, and iii. t. 3, 4. *Coluber albofuscus*, *Lacép. Quadr. Ovip.* ii. p. 197. *Coluber epidaurius*, *Herm. Obs. Zool.* i. p. 285. *Lycodon annulatus*, *Boie, Isis*, 1827, p. 527. *Dipsas annulata*, *Schleg. Ess.* ii. p. 294; *Dum. & Bibr.* p. 1141. *Leptodeira annulata*, *Fitzinger, Syst. Rept.* p. 27.

Anal bifid. Scales in twenty-one or twenty-three (by exception in nineteen) rows. Light brown, with a dorsal series of large brown spots, sometimes all, sometimes only a part confluent into a zigzag band.

Most of the specimens coming from Central America have the scales disposed in twenty-three longitudinal rows, and are provided with shorter tails.

- a. Many specimens. Mexico. From Hugo Finck's Collection.
- b-d. Adult: injured. Mexico. From Mr. Warwick's Collection.
- e. Adult. Mexico. From M. Sallé's Collection.
- f. Adult: rather discoloured. Mexico. From M. Sallé's Collection.
- g. Many specimens: not in good state. Mexico. From Mr. Warwick's Collection.
- h. Half-grown: injured. Mexico. From Mr. Warwick's Collection.
- i. Half-grown. Mexico. From Hugo Finck's Collection.
- k, l. Half-grown: bad state. Mexico.
- m. Young. Mexico.
- n. Half-grown. Guayaquil.
- o. Adult. Honduras. From Mr. Dyson's Collection.
- p. Adult. America. From the Collection of the Zoological Society.



- q.* Adult. America. From the Haslar Collection. Specimens *o*, *p* and *q* are whitish, with rather small spots; head white, with a brown temple-streak.
- r.* Adult: female. Caraccas. From M. Parzudaki's Collection.
- s.* Half-grown. Caraccas.
- t.* Adult: male. Venezuela. From Mr. Dyson's Collection.
- u.* Half-grown: not good state. Venezuela. From Mr. Dyson's Collection.
- v.* Half-grown. Venezuela. From Mr. Dyson's Collection.
- w.* Half-grown. Venezuela. From Mr. Dyson's Collection.
- x.* Adult. Demerara. From Mr. Snellgrove's Collection.
- y.* Half-grown. Demerara. From Mr. Snellgrove's Collection.
- z*, *a.* Half-grown: injured. Demerara. Presented by Dr. Hancock.
- β.* Half-grown. Demerara. Presented by Dr. Hancock.
- γ.* Adult: male. Barbice.
- δ.* Half-grown: injured. Barbice. Presented by Lady Essex.
- ε.* Adult. Amazon. From Mr. Bates's Collection.
- ζ.* Adult. Para. Presented by R. Graham, Esq.
- η.* Young. Para. Presented by R. Graham, Esq.
- θ.* Young. Pernambuco. Presented by J. G. Smith, Esq.
- ι.* Half-grown: injured. Bahia. Presented by Mr. Ker.
- κ.* Adult. Brazil. From Dr. Gardiner's Collection.
- λ*, *μ.* Young. Brazil. Presented by Edward Bowerbank, Esq.
- ν.* Adult. South America. From Mr. Mather's Collection.
- ξ*, *ο.* Adult and half-grown. South America. From Mr. Mather's Collection.
- π.* Half-grown. South America. Presented by W. F. Evans, Esq.
- ρ.* Half-grown. South America. Presented by W. F. Evans, Esq.
- σ.* Many specimens: not good state. South America.
- τ.* Adult. South America.
- υ.* Adult. South America. Scales in nineteen rows.
- φ*, *ψ.* Adult: bad state. South America.
- ω.* Half-grown: injured. South America. From the Haslar Collection.
- aa.* Half-grown: injured. South America. From the Berlin Museum.
- bb.* Young. S. America. Presented by the Zoological Society.
- cc.* Young. South America. From the Haslar Collection.
- dd-ll.* Young. South America.
- mm.* Adult. South America. Presented by E. Lapresse, Esq. Scales in nineteen rows.
- nn-pp.* Adult. South America. Presented by Edward Bowerbank, Esq. Scales in nineteen rows.

3. EUDIPSAS, *Fitzinger*.

*Dipsas* with a compressed, elongate body and tail; head broad, distinct from neck; shields of the head regular; one loreal, one anterior, two posterior oculars; scales moderate (nineteen to twenty-three rows), those on the vertebral line larger, hexagonal; anal entire; subcaudals two-rowed. Pupil subelliptical; eyes moderate; nostril between two shields. Anterior palatine, maxillary and mandibular teeth longer, or much longer, than the following; posterior maxillary tooth furrowed. South America; East Indian Islands.

*Eudipsas*, *Fitzinger*, *Syst. der Rept.* p. 27. *Opetiodon*, *Lycognathus*, sp., *Dum. & Bibr.* vii. pp. 905 & 924. *Dipsas*, sp., *Schlegel*, *Ess.* ii. p. 268. *Coluber*, *Vipera*, *auct. prior.*

## 1. EUDIPSAS CYNODON.

*Seba*, ii. 76. 1. *Vipera ammodytes*, *Klein*, *Tent.* p. 21. *Dipsas cynodon*, *Cuv.*; *Boie*, *Isis*, 1827, p. 559; *Guérin*, *Iconogr.* pl. 21. f. 2; *Schleg.* *Ess.* pl. 11. f. 10, 11; *Cantor*, *Catal.* p. 77. *Eudipsas cynodon*, *Fitzinger*, *Syst. der Rept.* p. 27. *Opetiodon cynodon*, *Dum. & Bibr.* vii. p. 907.

Anterior palatine and mandibular teeth very large, much longer than the others. Scales in twenty-three rows. Greyish, with dark brown or black cross bands; crown varied with brown; a dark streak from the back edge of the eye to the angle of the mouth.

*a.* Adult. Philippine Islands. From Mr. Cuming's Collection.

*b.* Adult. Java? From Mr. Argent's Collection.

*c.* Adult. Asia. From the Leyden Museum.

*d.* Adult: male. Asia. Presented by the Zoological Society.

## 2. EUDIPSAS LEUCOCEPHALUS.

*Coluber leucocephalus*, *Mikan*, *Delect. Flor. et Faunæ*, t. .f. 2. *Coluber compressus*, *Oppel*. *Dipsadomorphus compressus*, (*Fitz.*) *Wiegmann Archiv*, 1845, p. 165. *Dipsas leucocephala*, *Schlegel*, *Ess.* p. 288. *Lycognathus leucocephalus*, *Dum. & Bibr.* vii. p. 924.

Anterior palatine, maxillary and mandibular teeth rather longer than the others. Scales in nineteen rows. Greyish, with dark brown cross bands; head uniform whitish. Two upper labials reaching the orbit.

*a.* Adult. Berbice.

*b.* Adult. Brazil. From Mr. Frank's Collection.

*c.* Adult: not good state. Brazil. Presented by Lord Stuart.

*d.* Half-grown. Para. From Mr. Stevens's Collection.

*e.* Young. Berbice. Presented by Lady Essex.

#### 4. DIPSAS, *Auct.*

Body and tail generally compressed, elongate; head much depressed, triangular, broad behind, very distinct from neck; generally one loreal; one anterior, generally two posterior oculars; rostral moderate; scales moderate, in nineteen to twenty-seven rows, smooth, moderately imbricate, in not very oblique rows; those of the vertebral series larger; anal entire; subcaudals two-rowed. Pupil elliptical; nostril moderate, between two shields. Posterior maxillary teeth longest, grooved. East Indies; South America; Africa; Australia.

Imantodes, Triglyphodon, Dipsas, sp. = Dipsadiens, pt., *Dum. & Bibr.* vii. p. 1053. Dipsas, sp., *Boie, Isis*, 1827, p. 549; *Cuv. Règne Anim.*; *Wagl. Nat. Syst. Amph.* p. 181; *Schlegel, Ess.* ii. p. 257. Dendrophis, sp., *Gray, Zool. Misc.* p. 54. Bungarus, sp., *Oppel, Ann. Mus. d'Hist. Nat.* xvi. p. 392. Hurria, sp., *Daud. Rept.* v. p. 277; *Merr. Tent.* p. 93. Natrrix, sp., Coluber, sp., *auct. prior.*

##### 1. DIPSAS MULTIMACULATA.

*Russell, Ind. Serp.* ii. t. 23. Dipsas multimaculata, *Reinwardt; Boie, Isis*, 1827, p. 559; *Schleg. Ess.* pl. 11. f. 4, 5, and *Abbildg.* t. 45. f. 13-15; *Dum. & Bibr.* vii. p. 1139.

Scales in nineteen rows; anal entire. Ground-colour greyish or olive; on each side of the back a series of large brown rounded or polygonal blotches; a second series of smaller spots near the abdomen; crown of the head with an arrow-shaped brown spot; a streak of the same colour from the back edge of eye to the angle of mouth.

*a.* Adult. Java. From the Leyden Museum.

*b.* Half-grown. Hongkong. Presented by J. C. Bowring, Esq.

*c, d.* Adult: discoloured. Asia. Old Collection.

*e.* Adult: not good state. Asia. Old Collection.

##### 2. DIPSAS DENDROPHILA.

*Seba*, i. 21. 1; *Scheuchz.* iv. t. 662. Coluber peruvianus, *Shaw, Gen. Zool.* iii. t. 122. Dipsas dendrophila, *Reinwardt; Boie, Isis*, 1827, p. 549; *Wagl. Syst. der Amph.* p. 181, and *Icones*, t. 8; *Filippi, Catal.*; *Schleg. Ess.* t. 11. f. 1-3, and *Abbildg.* t. 45. f. 1-9; *Hoeven, Handb.* t. 15. f. 9 (anat.); *Cantor, Catal.* p. 76. Dipsas indica, *Cuv. Règne Anim.* Triglyphodon dendrophilum, *Dum. & Bibr.* vii. p. 1086. Triglyphodon gemmicinctum, *Dum. & Bibr.* vii. p. 1091.



Scales in twenty-one rows; anal entire; black, with forty to sixty narrow yellow (in spirits) white cross bands.

*a.* Adult. Philippine Islands. From Mr. Cuming's Collection.

*b.* Young: bad state. Philippine Islands. From Mr. Cuming's Collection.

*c.* Adult. Borneo. Presented by Sir James Brooke.

*d.* Adult: injured. Borneo. From Mr. Lowe's Collection.

*e.* Adult. Celebes. From the Leyden Museum.

*f, g.* Adult: not good state. Sumatra. Presented by Capt. Sir E. Belcher.

*h.* Adult. India. Presented by Gen. Hardwicke.

All these specimens belong to the variety *T. gemmicinctum*, D. & B.

*i.* Adult. Java? From Mr. Argent's Collection.

*k.* Large specimen. East Indies. From the Collection of the Zoological Society.

*l.* Adult. East Indies. From Mr. Jamrach's Collection.

### 3. DIPAS BOOPS.

Body and tail very slender, much compressed; head voluminous, eye very large. Scales in twenty-one rows. Yellowish brown, marbled with purple, with more or less distinct cross bands; head marbled with brown; no temple-streak.

*a.* Adult. Bengal. Presented by General Hardwicke.

*b.* Adult. Bengal. Presented by General Hardwicke.

*Description.*—Body and tail very slender, much compressed; head very voluminous, broad, thick, very distinct from neck, with flat crown, and short, broad, rounded muzzle; eye very large, so as nearly to suppress the labials. Rostral shield small, not reaching the surface of head; frontals moderate, of equal length, rather convex; vertical large, spheroid, in one specimen in contact with anterior ocular, in the other one not quite extending to it; occipitals moderate, forked, irregularly tapering; superciliaries nearly triangular, very convex; one anterior, two posterior oculars; loreal small, subquadrangular; suture between the nasals not very distinct; eight narrow upper labials, third, fourth and fifth forming the lower edge of orbit, sixth higher than fifth; chin-shields broad, nearly suppressing the lower labials, except the first pair, which forms a broad suture behind the terminal labial; two pairs of moderate temporal shields, front pair coming in contact with both oculars. Scales in twenty-one rows, those of the medial series large, six-sided; anal entire; ventral plates not keeled. Three posterior maxillary teeth longest, grooved. Above light



yellowish brown, marbled with purple, and numerous narrow, black, more or less distinct cross bands; head whitish, beautifully marbled and spotted with black; belly yellowish, with a lateral series of irregular large black spots; remainder sometimes uniform, sometimes marbled with purple. Length of cleft of mouth  $\frac{3}{4}$ "; length of eye nearly  $\frac{1}{4}$ "; length of tail 15"; total length 4' 9".

#### 4. DIPSAS DRAPIEZII.

*Dipsas drapiezii*, Boie, *Isis*, 1827, p. 559; *Schleg. Ess.* pl. 11. f. 8, 9 (not good), and *Abbildg.* t. 15. *Triglyphodon drapiezii*, Dum. & Bibr. vii. p. 1097.

Body compressed and very slender, tail about a fourth of total length. Scales in nineteen rows; anal entire; generally no loreal shield; eight upper labials. Dirty white, with narrow black cross bands, on each side a series of irregular black spots; no streak from the eye to the angle of mouth; three upper labials reaching the orbit; vertical shield with nearly parallel lateral edges; eye very large.

a. Adult: bad state. Sine patria. From the Haslar Collection.

The specimen, having only seventeen longitudinal rows of scales, is referred to the above species with doubt.

#### 5. DIPSAS FUSCA.

*Dendrophis fusca*, Gray, *Zool. Misc.* 1842, p. 54. *Triglyphodon flavescens*, Dum. & Bibr. p. 1080.

General appearance like *D. irregularis*, but rather stouter. Scales in nineteen rows, those on the vertebral line much larger, regularly six-sided; vertical shield broad, occipitals obtuse behind; one loreal, eight upper labials, the third, fourth and fifth touching the orbit (accidentally the second divided into two). Head uniform brown, with a very obsolete temple-streak; back pale brown, with numerous black netted, oblique, sometimes obsolete cross bands; belly uniform light brown; eye moderate.

a. Adult. Port Essington.

b, c. Adult. Port Essington. Presented by the Earl of Derby.

d. Adult. Australia. Presented by Sir J. Richardson, M.D., C.B.

e. Adult. Australia. Presented by Sir J. Richardson, M.D., C.B.

f. Adult: bad state. Port Essington. From the Haslar Collection.

g. Adult: bleached. Australia. From the Haslar Collection.

6. *DIPSAS IRREGULARIS*.

Unregelmaessige Natter, *Merr. Beitr.* pl. 4. *Hurria irregularis*, *Merr. Tent.* p. 93. *Hurria pseudo-boiga*, *Daud. Rept.* v. p. 277. *Dipsas irregularis*, *Boie, Isis*, 1827, p. 549; *Wagl. Amph.* p. 181; *Schleg. Ess.* pl. 11. f. 12, 13. *Triglyphodon irregularis*, *Dum. & Bibr.* vii. p. 1072.

Scales in twenty-one or twenty-three rows; one anterior ocular; fifteen to twenty temporal shields. Olive, grey or brown, sometimes with more or less distinct darker cross bands, sometimes only varied with black; one black streak from the back edge of eye to the angle of mouth.

- a. Adult: male. Amboyna. From the Leyden Museum.
- b. Adult. Celebes. From the Leyden Museum as *D. drapiezii*.
- c. Adult. Asia. From Mr. Frank's Collection as *D. pallida* (?).
- d. Adult: bleached. Asia. Old Collection.
- e. Adult: not good state. Asia. Presented by Captain Sir E. Belcher.
- f. Foetus and eggs. Asia. The foetus exhibits all the subcaudal plates bifid.

7. *DIPSAS FORSTENI*.

*Triglyphodon forsteni*, *Dum. & Bibr.* vii. p. 1077.

Scales in twenty-seven or twenty-nine rows; anal entire. Olive, with darker cross bands, or only varied with black.

- a. Adult: rather discoloured. India.
- b. Half-grown: rather discoloured. —? From the Haslar Collection.
- c. Adult: fine specimen. —? Presented by the Zoological Society.
- d. Adult. —? From the Collection of the Zool. Soc.

8. *DIPSAS VALIDA*.

*Triglyphodon fuscum*\*, *Dum. & Bibr.* p. 1101. *Dipsas valida*, *Fischer, Abhandl. aus dem Gebiete der Naturwiss. Hambg.* 1856, p. 87. t. 3. f. 4.

Scales in twenty-three rows; two anterior oculars; the hinder edges of the occipital shields forming nearly a right angle; anal bifid. Quite uniform brown, paler beneath, sometimes on the sides a row of large brown spots.

- a. Adult. Fantee, W. Africa. From the Leyden Museum.
- b. Adult. Coast of Guinea.

\* This name is preoccupied, having been given to an Australian species of the genus by Dr. Gray in the year 1842.

9. *DIPSAS GLOBICEPS*.

*Fischer, l. c. p. 89. t. 3. f. 6.*

Scales in twenty-three rows; two anterior oculars; the hinder edges of the occipital shields forming nearly a straight line; anal bifid. Greyish brown, on each side a row of large black spots with white centre. Liberia.

10. *DIPSAS FASCIATA*.

*Fischer, l. c. p. 84. t. 3. f. 5 (ante-orbital should not be divided).*

Scales in twenty-three rows; one anterior ocular; eight temporal shields. Greyish; two temple-streaks; on each side a row of blackish-brown perpendicular cross streaks, extending on the belly. W. Africa.

11. *DIPSAS PULVERULENTA*.

*Fischer, l. c. p. 81. t. 3. f. 1.*

Body and tail very slender, much compressed; head very distinct from neck. Scales in nineteen rows; anal entire. Brown: on each side a series of numerous dark brown erect transverse streaks, some pairs confluent, forming cross bands; beneath with two punctulated longitudinal lines, extending to the tip of tail; head uniform brownish.

*a.* Old Calabar. Presented by W. Logan, Esq.

*b.* Old Calabar. Presented by W. Logan, Esq.

*Description.*—Body and tail slender, much compressed; head voluminous, very distinct from neck; eye large, pupil subelliptical; rostral shield moderate, just reaching the surface of snout; frontals moderate; vertical very broad, nearly reaching the outer edge of crown, with convergent sides and an obtuse angle behind, rather longer than broad; occipitals moderate, rather broad and truncated behind, not forked; superciliary forming a triangle with the base above the eye; posterior oculars two, anterior one, just reaching the surface of crown; loreal square, nasals short; eight narrow upper labials, third, fourth and fifth forming the lower edge of eye; two pairs of elongate temporal shields, front pair in contact with both oculars. Scales smooth, in nineteen rows; those of the vertebral series largest; of the first and second, of the seventh, eighth and ninth broad, rhombic; of the intermediate ones much imbricate, narrow, lanceolate; anal entire, subcaudals two-rowed. Two posterior maxillary teeth longest, channeled, remainder equal. Brown with a strong cast of purple; each side with sixty-eight elliptical erect brown transverse streaks, sometimes the pairs confluent on the back, streaks in the middle



of body with a small yellow spot in the centre; head uniform. Belly paler, minutely punctulated with black; from the chin to the tip of tail a lateral black line, formed by innumerable minute black specks. Breadth of head  $\frac{3}{8}$ " ; length of cleft of mouth  $\frac{1}{2}$ " ; length of tail  $4\frac{1}{3}$ " ; total length  $20\frac{1}{3}$ " .

## 12. DIPSAS CENCHOA.

*Vipera cenchoa*, *Seba*, ii. 16. 2. 3; *Scheuchzer*, t. 678. f. 3. *Coluber cenchoa*, *Linn. Syst. Nat.* ed. xii. p. 389; *Shaw, Gen. Zool.* iii. p. 475; *Latr. Rept.* iv. p. 129; *Daud. Rept.* vi. p. 283; *Kuhl, Beitr. zur Zool.* p. 88; *Daubenton, Dict. Encycl.* p. 601; *Weigel in den Schriften der Berl. Gesellsch. Naturf. Freunde*, t. iii.; *Lacép. Quadr. Ovip. Serp.* ii. p. 316; *Bonnat. Encycl. Méth.* pl. 29. f. 60. *Bungarus cenchoa*, *Oppel, Ann. Mus. d'Hist. Nat.* xvi. p. 392. *Natrix cenchoa*, *Merr. Tent.* p. 114. *Dipsas cenchoa*, *Wied, Beitr.* i. p. 396; *Boie, Isis*, 1827, p. 560; *Wagl. Syst. der Amph.* p. 181. *Dipsas weigeli* et *D. cenchoa*, *Fitz. Neue Classif.*; *Schleg. Ess.* pl. 11. f. 19, 20. *Imantodes cenchoa*, *Dum. & Bibr.* vii. p. 1065.

Body compressed and very slender; tail extremely thin, nearly half as long as trunk; head large, very distinct from neck. Scales in seventeen or nineteen rows, those of the vertebral line much larger; anal bifid. Whitish, with transverse rhomboidal brown bands.

a. Half-grown. Surinam.

b. Young; tail injured. Venezuela. From Mr. Dyson's Collection.

c-g. Adult. Mexico. From Mr. Hugo Finck's Collection.

h. Adult. America. From the Collection of the Zoological Society.

i. Adult. America. From the Collection of the Zoological Society.

## 5. DIPSADOMORPHUS, *Fitzinger*.

Body and tail compressed, elongate; head depressed, triangular, broad behind, very distinct from neck; one (in one species two) loreal; one anterior, two posterior oculars; rostral moderate; scales moderate, in nineteen to twenty-three rows, smooth, very much imbricate, in very oblique rows, those of the vertebral row larger; anal entire; subcaudals two-rowed. Pupil elliptical; nostril moderate, between two shields. Posterior maxillary tooth longest, grooved. East Indies; Mexico.

*Dipsas*, sp., *Boie, Isis*, 1827, p. 559; *Gray, Indian Zool.*; *Schleg. Ess.* ii. p. 267; *Dum. & Bibr.* vii. p. 1135. *Dipsadomorphus*, *Fitz. Syst. Rept.* p. 27. *Coluber*, sp., *auct. prior*.



1. *DIPSADOMORPHUS TRIGONATUS*.

*Russell, Ind. Serp.* i. t. 15. *Coluber trigonalis*, *Schneider in Bechstein's Uebers. Laccp.* iv. t. 40. f. 1; *Merr. Tent.* p. 104. *Coluber sagittatus*, *Shaw, Gen. Zool.* iii. p. 526. *Coluber catenularis*, *Daud. Rept.* vi. pl. 75. f. 2. *Dipsas trigonata*, *Boie, Isis*, 1827, p. 559; *Schleg. Ess.* pl. 11. f. 6, 7; *Dum. & Bibr.* vii. p. 1136. *Dipsadomorphus trigonatus*, *Fitzinger, Syst. Rept.* p. 27.

Scales generally in twenty-one rows (exceptionally in nineteen); one loreal; light yellowish brown, with a yellow, black-edged, sometimes interrupted dorsal zigzag band; the black edges sometimes extending to the abdomen; belly uniform yellowish, with an irregularly punctated lateral line.

a. Adult. India. From the Leyden Museum.

b. Adult. India.

c. Adult. India.

d. Adult. India. Presented by W. Masters, Esq.

e, f. Adult and half-grown: not good state. India. Presented by W. Masters, Esq.

g. Adult: discoloured. India. Presented by Dr. Russell.

h. Young. India.

i. Adult: injured. Bengal. Presented by the College of Surgeons.

k. Half-grown. Bengal. Presented by General Hardwicke.

l, m. Adult. Madras. Presented by J. E. J. Boileau, Esq.

n. Adult: injured. Madras. Presented by J. E. J. Boileau, Esq.

o. Young. Madras. Presented by J. E. J. Boileau, Esq.

p. Young. Madras. Presented by J. E. J. Boileau, Esq.

q. Nearly half-grown. Madras. Presented by J. C. Jerdon, Esq.

r. Adult: bleached. India. Presented by Capt. P. P. King.

s. Adult: tail injured. India. Presented by Mr. Hillier.

t. Adult: greatly injured. India. Purchased.

u. Adult: injured. India. Presented by J. Nimmo, Esq.

v. Adult. India. From Mr. Warwick's Collection.

Var. A. *Dipsas gokool*, *Gray, Ind. Zool.* pl. . f. 1.

The dorsal band peculiarly modified: a yellow, straight, vertebral line; on each side a row of black, erect, Y-shaped marks.

w. Adult. Bengal. Presented by General Hardwicke. Original specimen of Dr. Gray's figuré.

Var. B. Belly checkered with black.

x. Adult. India.

2. *DIPSADOMORPHUS CEYLONENSIS*.

Scales in nineteen rows; one loreal. Greyish, minutely punctulated with black; a vertebral series of more or less rounded black spots, each emitting an oblique narrow streak towards the sides of belly; belly freckled with brown, and on each side a series of brown spots.

- a.* Adult. Ceylon. From Mr. Cuming's Collection.
- b.* Adult. Ceylon. Presented by A. Paul, Esq.
- c.* Adult: bad state. Ceylon. Presented by R. Templeton, Esq.
- d.* Half-grown. Ceylon. Presented by R. Templeton, Esq.
- e.* Half-grown. Ceylon. From Mr. Cuming's Collection.
- f.* Half-grown. Ceylon. From Mr. Cuming's Collection.
- g.* Young. Ceylon. From Mr. Cuming's Collection.

Closely allied to *D. trigonatus*, but differs in having a peculiar system of coloration, larger scales in the vertebral row, less imbricate scales, and a much larger eye. Structure of head-shields the same. In the stomach of one specimen I found a young rat. Size the same as of *D. trigonatus*.

3. *DIPSADOMORPHUS BISCUTATUS*.

*Dipsas biscutata*, *Dum. & Bibr.* p. 1153.

Scales in twenty-three rows; two loreals, one above the other; three anterior, three posterior oculars. Yellowish brown, with large irregularly lozenge-shaped brown yellow-edged spots, each enclosing a smaller yellow spot. Mexico.

- a.* Adult. Central America. From the Haslar Collection.

6. *RHINOBTHRYUM*, *Wagler*.

Body much compressed and elongated; head broad, depressed, flat above, triangular, very distinct from neck; rostral shield far produced backwards between the anterior frontals, so as to sometimes reach the posterior ones; snout rather elongate, truncated in front; one loreal, one anterior, two posterior oculars; scales moderate (in nineteen to twenty-one rows), imbricate, lanceolate, those on the back equal, keeled; anal bifid; subcaudals two-rowed. Nostril forming a very large and deep groove between two nasals and the anterior frontal. Hinder maxillary teeth longest, furrowed; the anterior ones equal in length. South America.

*Rhinobothryum*, *Wagl. Nat. Syst. der Amph.* p. 186; *Dum. & Bibr.* vii. p. 1060. *Dipsas*, sp., *Schleg. Ess.* ii. p. 289. *Coluber*, sp., *Boie, Scopoli*.

1. RHINOBOOTHRYUM LENTIGINOSUM.

*Coluber lentiginosus*, *Scopoli, Delic. Flor. et Faun. Insul. Austr.* iii. t. 20. f. 2. *Rhinobothryum macrorhinum*, *Wagl. l. c.* *Dipsas macrorhina*, *Schleg. Ess.* pl. 11. f. 31, 32. *Rhinobothryum lentiginosum*, *Dum. & Bibr.* p. 1061.

Whitish, with large, broad, brown rings; each shield of head with a brown spot in the centre.

a. Adult. Tropical America. From Mr. Mather's Collection.

7. LEPTOGNATHUS, *Dum. & Bibr.*

Body more or less compressed and elongate; head high, quadrangular, with blunt, rounded muzzle, more or less distinct from neck; rostral shield not produced backwards; loreal generally wanting; one or two anterior, generally two posterior oculars; scales moderate, smooth, in thirteen or fifteen rows; those of the vertebral row larger, six-sided; subcaudals two-rowed. Eye and nostril moderate. Teeth equal, smooth. South America; India.

*Petalognathus*, *Dipsadomorus*, *Leptognathus*, *Anholodon* = *Leptognathiens*, pt., *Dum. & Bibr.* vii. p. 456. *Dipsas*, sp., *Laurenti, Syn. Rept.* p. 90; *Schinz, Thierreich*, p. 117; *Boie, Isis*, 1827, p. 549; *Wagl. Syst.* p. 181; *Schleg. Ess.* ii. p. 257. *Bungarus*, sp., *Oppel, Ann. Mus. d'Hist. Nat.* 1810, p. 392. *Coluber*, sp., *auct. prior.*

1. LEPTOGNATHUS NEBULATUS.

*Sibon*, *Seba*, i. 14. 4, ii. 29. 3. *Coluber nebulatus*, *L. Mus. Ad. Fried.* t. 24. f. 1, and *Syst. Nat.* p. 383; *Daub. Quadr. Ovip. Serp.* p. 657; *Weigel, Abh. der Hallens. Naturf. Gesellsch.* i. p. 32; *Lacép. Quadr. Ov. Serp.* ii. p. 307; *Bonnat. Encycl. Ophiol.* pl. 20. f. 38; *Merr. Beitr.* i. pl. 8, and *Tent.* p. 104; *Shaw, Gen. Zool.* iii. p. 476; *Latr. Rept.* iv. p. 177; *Daud. Rept.* vi. p. 413; *Kuhl, Beitr. zur Zool.* p. 88. *Coluber sibon*, *Linn. Syst. Nat.* p. 383; *Daub. l. c.* p. 679; *Lacép. l. c.* p. 271; *Bonnat. l. c.* pl. 19. f. 35; *Shaw, l. c.* p. 507; *Latr. l. c.* p. 164; *Daud. l. c.* p. 435; *Merr. Tent.* p. 130. *Dipsas nebulata*, *Boie, Isis*, 1827, p. 560; *Schleg. Ess.* pl. 11. f. 14, 15. *Petalognathus nebulatus*, *Dum. & Bibr.* vii. p. 464.

Body and tail moderately slender, rather rounded; loreal shield none, replaced by the large single ante-orbital; upper labials seven; first pair of lower labials forming a suture together; three pairs of chin-shields behind, the first of which is three times as long



as broad; each shield of the two other ones much smaller than one posterior frontal. Greyish brown, marbled with brown; on the back and on the sides more or less regular dark brown cross bands, extending on the ventral shields; belly irregularly spotted with black.

- a.* Adult. S. America. From Mr. Mather's Collection.
- b.* Adult. Pernambuco. Presented by J. P. G. Smith, Esq.
- c.* Many specimens. Berbice.
- d.* Young. Berbice. Presented by Lady Essex.
- e, f.* Adult. Demerara. From Mr. Snellgrove's Collection.
- g.* Adult. Demerara. From Mr. Snellgrove's Collection.
- h.* Half-grown. Demerara. From Mr. Snellgrove's Collection.
- i.* Half-grown. Demerara. Presented by W. Raddon, Esq.
- k, l.* Adult and young. Venezuela. From Mr. Dyson's Collection.
- m-o.* Adult. Mexico. From Mr. Hugo Finck's Collection.
- p.* Adult. West Indies. Presented by Miss Saul.
- q.* Adult. West Indies. Presented by Miss Saul.
- r.* Adult: injured. West Indies. Presented by Miss Saul.
- s.* Adult: head injured. America. Presented by Mr. Tennant.
- t.* Adult. America.
- u-w.* Adult. America. From Mr. Argent's Collection.
- x.* Adult: head injured. America.

## 2. LEPTOGNATHUS MIKANII.

*Dipsas mikanii* (*Mus. Vienn.*), *Schleg. Ess.* ii. p. 277. *Anholodon mikanii*, *Dum. & Bibr.* p. 1165.

Body and tail rather short, not much compressed; loreal shield generally united with ante-ocular; sometimes a rudimentary ocular above and beneath the loreal; upper labials seven or eight; first pair of lower labials forming a suture together; two pairs of chin-shields behind, the first of which is once and a half as long as broad; each shield of both pairs as large as one posterior frontal. Greyish brown, punctulated with brown; with dark brown cross bands, not extending on the belly; belly with a punctated line on each side.

- a.* Adult: male. Pernambuco. Presented by J. P. G. Smith, Esq.
- b.* Adult. Pernambuco. From the Collection of the Zoological Society.
- c.* Young. Pernambuco. Presented by J. P. G. Smith, Esq.
- d.* Half-grown. Rio Janeiro. Presented by A. Fry, Esq.
- e.* Half-grown. Brazil. From M. Parzudaki's Collection.

*Description.*—In habit similar to *L. nebulatus*, but rather shorter; head more depressed, with rather rounded crown and



blunt muzzle; eye moderate, pupil elliptical. Rostral rather broader than high, just reaching the surface of forehead; anterior frontals narrow, small, short; posterior ones much larger, quadrangular; vertical moderate, as broad as long, similar to the same shield in *L. nebulatus*; occipitals rounded behind; nostril between two shields; loreal and ante-orbital generally united, as in the just mentioned species; but one of our specimens exhibits on both sides a small, triangular, separated ante-orbital in the lower front angle of eye; another specimen has an ocular above and beneath the loreal shield; two posterior oculars; generally seven upper labials, the fourth of which is just below the eye; it is divided into two in specimens exhibiting eight upper labials. One rather large temporal shield in contact with both oculars; four or five smaller ones, scale-like behind; there are nine pairs of lower labials, first pair forming together a suture, second, third and fourth rather broad (in *L. nebulatus* very narrow); the chin-shields, as above mentioned, give a sufficient character for distinguishing at once the species from *L. nebulatus*. Scales in fifteen rows, those of the vertebral line six-sided, larger; ventral plates rather rounded, on the posterior part of body raised on the side; anal entire. Teeth equal, smooth. In coloration similar to *L. nebulatus*, but with certain differences. Brownish grey, minutely punctulated with brown; on each side of body, black, yellowish-edged cross bands, not extending on the belly, either alternate with those of the other side, or confluent with them; on the anterior part of trunk the bands are enlarged to four rhombic spots; head symmetrically marked with brown; belly yellowish, on each side a series of small brown spots. In the stomach of specimen *a*, I found a *Veronicella*. Length of tail 4"; total length 19".

### 3. LEPTOGNATHUS VARIEGATUS.

*Dipsas variegata*, Schleg. *Leyd. Mus.* *Leptognathus variegatus*, *Dum. & Bibr.* p. 477.

Body compressed; loreal none; ten or eleven upper labials; one anterior ocular. Whitish, variegated with brown and with broad brown transverse bands. (*Dum. & Bibr.*) Surinam.

### 4. LEPTOGNATHUS PAVONINUS.

*Dipsas pavonina*, (Cuv.) Schleg. *Ess.* ii. 280. *Leptognathus pavoninus*, *Dum. & Bibr.* p. 474.

Body slender, compressed; loreal none; two anterior oculars, ten or eleven upper labials. Above dirty white with a series of large brown spots, regularly rounded on the posterior part of body. (*Dum. & Bibr.*) Guiana.

## 5. LEPTOGNATHUS CATESBYI.

*Coluber compressus*, *Daud. Rept.* vi. p. 247. *Coluber catesbyi*, *Weigel in Meyer's Archiv*, ii. 55-66; *Merr. Tent.* p. 128. *Dipsas catesbyi*, *Boie, Isis*, 1827, p. 560; *Wagl. Syst. Amph.* p. 181; *Schleg. Ess. t. 11. f. 21-23*; *Tschudi in Wiegmann's Arch.* 1845, p. 165. *Stremmatognathus catesbyi*, *Dum. & Bibr.* vii. p. 522.

Body slender, compressed; one loreal, two anterior oculars; eight upper labials. Above dirty white with a series of large rounded or polygonal brown spots; a white collar and a white band across the forehead.

- a. Adult. Surinam. From the Leyden Museum, as *Dipsas weigeli*.
- b. Half-grown. Para. From Mr. Stevens's Collection.
- c. Adult. Berbice. Presented by Lady Essex.
- d. Adult: head injured. America.
- e. Young. America.
- f. Adult: bad state. America. Presented by the College of Surgeons.

## 6. LEPTOGNATHUS INDICUS.

*Seba*, i. 43. 4; *Scheuchz.* iv. 654. 5. *Dipsas indica*, *Laur. Syn. Rept.* p. 90; *Wagl. Syst.* p. 181. *Coluber bucephalus*, *Shaw, Zool.* iii. p. 422. pl. 109; *Merr. Tent.* p. 128. *Bungarus bucephalus*, *Oppel, Ann. Mus. d'Hist. Nat.* 1810, p. 392. *Dipsas bucephala*, *Schinz, Thierreich*, ii. p. 117; *Boie, Isis*, 1827, p. 549; *Schleg. Ess.* pl. 11. f. 16-18. *Dipsadomorus indicus*, *Dum. & Bibr.* p. 420.

Body and tail very slender, much compressed; loreal none; upper labials nine; two anterior oculars. Brown, with about fifty lighter cross bands marbled with brown; belly coloured like cross bands; each cross band beneath with a white spot. Sumatra.

- a. Adult: head injured. East Indies. From the Zoological Society's Collection.

## 8. TROPIDODIPSAS, Günther.

Body and tail moderate, compressed; head not much depressed, subquadrate, rather broad behind, with blunt, rounded muzzle, distinct from neck; rostral shield moderate; one loreal, two an-

terior, two posterior oculars ; scales moderate, keeled, in seventeen rows ; those of the vertebral row not larger ; subcaudals two-rowed. Eye and nostril moderate. Teeth equal, smooth. Mexico.

1. *TROPIDODIPSAS FASCIATA*.

Black, with white cross bands.

- a. Adult. Central America. From the Collection of the Zoological Society.
- b. Half-grown. Central America. From the Collection of the Zoological Society.
- c. Adult. Mexico.
- d. Half-grown. Mexico. From Mr. Hugo Finck's Collection.
- e. Half-grown. Mexico.

*Description*.—Habit rather similar to *Leptognathus nebulatus*, but with more compressed body and shorter head. Head not much depressed, broad behind, with rather rounded crown and short and blunt muzzle ; eye moderate, pupil subelliptical. Rostral as broad as high, rounded above, just reaching the surface of snout ; anterior frontals rather small, spheroid, posterior ones much larger, bent on the sides ; vertical moderate, in one specimen as broad as long ; occipitals moderate ; superciliary much broader behind ; two anterior, two posterior oculars ; upper ante-orbital just reaching the surface of crown ; one loreal, two nasals, nostril between ; seven upper labials, fourth and fifth forming the lower edge of eye ; about seven temporal shields, only the foremost in contact with both oculars ; first pair of lower labials forming a suture behind the terminal one, three pairs of chin-shields behind ; the shields of head exhibit a tendency towards irregularity. Scales with slight keels, in seventeen rows ; those of the vertebral row not larger ; ventral plates rounded, raised on the side ; anal entire. Teeth equal, smooth. Black, with seventeen narrow white cross bands, reaching to the sides of belly ; in one specimen belly whitish, black-spotted ; first cross band on the neck. Length of cleft of mouth  $\frac{1}{2}$ " ; length of tail 4" ; total length 24".

9. *HEMIDIPSAS, Günther*.

Body and tail moderate, rather compressed ; head depressed, triangular, rather broad behind, distinct from neck, with rather broad, rounded muzzle ; rostral shield moderate ; only one nasal ; loreal united with lower ante-ocular, reaching the eye ; an ante-ocular above ; two posterior oculars. Scales moderate, smooth,



in fifteen rows, those of the vertebral row not larger; subcaudals two-rowed; maxillary teeth becoming gradually larger behind; the two hindermost largest, compressed, smooth.

### 1. HEMIDIPSAS OCELLATA.

Yellowish grey, with large rounded brown spots.

a. Adult. Sine patria. From the Collection of the Zoological Society.

*Description of the specimen.*—Habit and coloration similar to *Leptodeira annulata*. Body moderately compressed; ventral shields bent on the sides; head compressed, with much-swollen temples, flat crown, and rather broad muzzle, rounded in front; eye moderate, pupil elliptical. Rostral broader than high, with a right angle above, and raised on the surface of forehead; all the frontal shields nearly equal in size, posterior ones broader, but shorter; vertical five-sided, longer than broad, with rather convergent lateral edges, and a right angle behind; occipitals moderate, rounded on the sides and behind; two posterior oculars; two shields forming the front edge of orbit; one upper small one, square, not reaching the surface of crown, and one oblong larger one, which may be considered as a loreal shield united with a second ante-ocular; one large oblong nasal, pierced by the nostril; seven upper labials, third and fourth forming the lower edge of eye; about seven scale-like temporal shields, two of which are in contact with the oculars; first pair of lower labials forming a suture behind the terminal one, four pairs of chin-shields behind. Scales as above mentioned, not much imbricate, rhombic; anal entire. Teeth as described. Yellowish grey, with a dorsal series of large, rounded, brown, lighter-edged spots; on the posterior part of body the spots, being divided into two, form two alternate series; on the sides near the belly a row of much smaller, rather indistinct, brown spots; head nearly uniform brownish grey; belly uniform yellowish. Length of cleft of mouth  $\frac{1}{2}$ " ; length of tail 6" ; total length 24".

The species probably comes from Tropical America.

### 10. DIPSADOBOA, Günther.

Body and tail compressed, slender; head depressed, triangular, broad behind, very distinct from neck; one loreal, one anterior, two or three posterior oculars. Scales moderate, rather short, rhombic, in seventeen or nineteen rows, smooth, those of the vertebral row larger; subcaudals entire. Pupil elliptical, erect; nostril moderate, between two shields. Posterior maxillary tooth longest, grooved. Central America; West Africa.



1. DIPSADOBOA MACULATA.

Eight upper labials, fourth and fifth coming into the orbit; ground colour? with small quadrangular black spots.

a. Central America. From M. Parzudaki's Collection.

*Description of the specimen.*—Habit like *Dipsadomorphus trigonatus*. Body slender, compressed; tail elongate, tapering; head depressed, with flat crown, broad behind, very distinct from neck; snout of moderate length, obtuse in front; eye moderate, pupil elliptic, erect. Rostral broad, obtuse and rounded above, reaching the surface of snout; anterior frontals small, square; posterior ones much larger, subquadrangular, slightly bent on the sides; vertical large, very broad in front, reaching the anterior ocular, with rather convergent outer edges and a posterior right angle; occipitals moderate, tapering, rounded, and not forked behind; three posterior oculars; anterior raised above the surface of crown; superciliary moderate; one elongate loreal, two nasals, nostril between; eight low upper labials, fourth and fifth coming into the orbit; ten temporal shields, two of which are in contact with oculars. Scales smooth, in nineteen rows, those of the medial row rather larger, and some regularly six-sided, the others of the back nearly square, those of the side rhomboidal; ventral plates obscurely keeled; *anal bifid*; subcaudals entire. Posterior maxillary tooth longest, grooved; anterior ones and palatine teeth appear to be equal in length; anterior mandibular teeth rather longer. Our specimen, being discoloured, exhibits a uniform dull yellowish coloration, some scales of the back and sides being black. Length of cleft of mouth  $\frac{1}{2}$ "; length of tail 7"; total length 28".

2. DIPSADOBOA UNICOLOR.

Nine upper labials, fourth, fifth and sixth forming the lower edge of eye; above uniform olive (in spirits); beneath uniform yellowish.

a. West Africa. From Mr. Rich's Collection.

*Description of the specimen.*—Body and tail not much elongate, much compressed; head depressed, with flat crown, broad, very distinct from neck, with short, obtuse muzzle; eye moderate, pupil elliptical, erect. Rostral as broad as high, just reaching the surface of snout; anterior frontals short, rounded in front, posterior ones moderate; vertical broad, reaching the anterior ocular, with convergent outer edges and a right angle behind; occipitals moderate; superciliary rather pointed in front, very broad and rounded behind; two posterior oculars, one high an-

terior ocular, raised above the surface of crown; loreal square, two short nasals, nostril between; nine upper labials, fourth, fifth and sixth forming the lower edge of eye. Scales smooth, imbricate, rhomboid, in seventeen rows, those of the vertebral row larger, six-sided. Anal and subcaudals entire. Posterior maxillary tooth longest, channeled; the remainder appear to be equal in length. Our specimen, being rather discoloured, exhibits a uniform bluish-green coloration of the superior parts; scales of the anterior part of body white at the base; beneath uniform yellowish. Length of cleft of mouth  $\frac{2}{3}$ " ; length of tail  $4\frac{2}{3}$ " ; total length 23".

### 11. AMBLYCEPHALUS, Kuhl.

*Dipsas* with a very elongate, slender body and tail; head broad, high, round, snout excessively short; vertical shield rather narrow, chin-shields very broad; one loreal. Scales smooth, elongate, scarce (thirteen or fifteen rows), those of the vertebral row larger, hexagonal. Anal and subcaudals entire. Pupil round, eyes moderate. Anterior palatine and anterior mandibular teeth long; no furrowed tooth. Small *Dipsas* from Java.

Amblycephalus, sp., Kuhl & Boie, *Bidrag. natuurk. Wetenschapp. verzam. door von Haal, Vrolik en Mulder*, iii. p. 249; *Isis*, 1827 & 1828. *Dipsas*, sp., Schlegel. *Aplopeltura*, Dum. & Bibr. vii. p. 444.

#### 1. AMBLYCEPHALUS BOA.

Amblycephalus boa, (Kuhl) H. Boie, *Bidrag. natuurk. Wetenschapp. verzam. door, &c.* iii. p. 249; *Isis*, 1828, p. 1035. *Dipsas* boa, Schleg. *Ess.* t. 11. f. 29, 30; Cantor, *Catal.* p. 78. pl. 40. f. 3. *Aplopeltura* boa, Dum. & Bibr. vii. p. 444.

Brownish, marbled with purple; on each side a series of large, irregular, whitish (in spirits) black-edged blotches.

- a. Adult. Philippine Islands. From Mr. Cuming's Collection.
- b. Large specimen. Borneo.
- c. Adult. Borneo. From Mr. Lowe's Collection.
- d. Adult. Asia. From the Leyden Museum.

### 12. PAREAS, Wagl.

*Dipsas* with a compressed body of moderate length; tail short, thin, very distinct from trunk; head blunt and round, snout exceedingly short; shields of head truncated, labial shields narrow, chin-shields broader than long. Scales rhombic, scarce (fifteen rows), those of the vertebral row rather larger, polygonal. Anal

entire, subcaudals two-rowed. Pupil erect, eyes moderate; nostril in the centre of a single shield; anterior palatine and anterior mandibular teeth longest; on furrowed tooth. Small *Dipsas* from Java.

*Amblycephalus*, sp., *Kuhl & Boie, Isis*, 1827 & 1828. *Pareas*, *Wagl. Nat. Syst. der Amph.* p. 181; *Dum. & Bibr.* vii. p. 438. *Dipsas*, sp., *Schlegel*.

# 1. PAREAS LÆVIS.

*Amblycephalus lævis*, (*Kuhl*) *Boie, Isis*, 1827, p. 519. *Dipsas lævis*, *Schleg. Ess.* t. 11. f. 24, 25. *Pareas lævis*, *Dum. & Bibr.* vii. p. 442.

Scales smooth. Above blackish brown, with oblique black cross bands; without streak behind the eye; loreal none.

a. Adult: male. Java. From the Leyden Museum.

b. Adult male: fine specimen. Java. Presented by Captain Sir E. Belcher.

# 2. PAREAS CARINATA.

*Dipsas carinata*, *Reinw.*; *Schleg. Ess.* pl. 11. f. 26-28, and *Abbildg.* pl. 45. f. 10-12. *Amblycephalus carinatus*, *Boie, Isis*, 1828, p. 1035. *Pareas carinata*, *Wagl. Syst. der Amph.* p. 181; *Dum. & Bibr.* vii. p. 439.

Scales of the dorsal rows slightly keeled. Above brown, with more or less distinct, irregular transverse bands; beneath paler, marbled with black; from the back edge of eye a black streak, confluent with that of the other side on the neck; one loreal shield.

a. Adult. Hong Kong. Presented by J. C. Bowring, Esq.

b. Half-grown. Java. From the Leyden Museum.

c. Adult. Java.

d. Adult: not good state. Java. Presented by the College of Surgeons.

## Fam. XI. SCYTALIDÆ.

Intermediate between the *Dipsadidæ* and *Lycodontidæ*. Body generally moderate, sometimes rather elongate and slightly compressed; tail of moderate length, not distinct from trunk, tapering; head moderate, with flat crown, rather broad behind, and distinct from neck, slightly depressed; eye moderate, pupil elliptical or subelliptical; cleft of mouth moderate; shields of head regular; nostril generally between two nasals; one loreal; one



or two anterior, two posterior oculars. Scales smooth, ovoid, not much imbricate, in seventeen or nineteen rows, sometimes those of the vertebral line larger. Anal entire, subcaudals one- or two-rowed; posterior maxillary tooth longest, grooved; anterior ones equal in length.

*Lycodon*, sp., *Schleg. Ess.* ii. p. 114, &c. *Scytaliens*, *Dum. & Bibr.* vii. p. 988.

### *Synopsis of the Genera.*

1. HOLOGERRHUM. Subcaudals entire; two anterior oculars. Philippines.
2. SCYTALE. Subcaudals entire; one anterior ocular. South America.
3. OXYRHOPUS. Subcaudals bifid. South America.

#### 1. HOLOGERRHUM, *Günther*.

Body and tail moderate, rounded, tapering behind. Head depressed, with flat crown and rather short muzzle, not very distinct from neck; eye moderate, pupil elliptical, erect; rostral moderate; two anterior, two posterior oculars, one loreal; nasal one (?); nostril situated in the front part. Scales smooth, in seventeen rows; anal and subcaudals entire. Posterior maxillary teeth longest, grooved. Philippine Islands.

#### 1. HOLOGERRHUM PHILIPPINUM.

Brown, with a few black oblong spots on the anterior part of body.

*a.* Philippine Islands. From Mr. Cuming's Collection.

*Description of the specimen.*—Habit like *Coronella lavis*: body moderate, rounded; tail moderate, tapering, not distinct from trunk; head depressed, with flat crown, not very distinct from neck, with rather short muzzle, obtuse in front; eye moderate, pupil elliptical, erect. Rostral shield moderate, reaching the surface of crown; anterior frontals moderate, not bent on the sides; posterior ones small, rounded behind, bent on the sides; vertical nearly three times as long as broad, with straight, nearly parallel outer edges, and an acute angle behind; occipitals moderate, forked. Superciliary moderate; anterior and posterior oculars two; one square loreal; nasal not separated, but grooved, anterior division pierced by the nostril; eight upper labials, third, fourth and fifth forming the lower edge of eye; seven temporal



shields, a single small one in contact with both oculars. Scales smooth, rather short, rhomboid, in seventeen rows; ventral plates flat, with rounded sides; anal entire; subcaudals one-rowed. Posterior maxillary teeth longest, grooved, anterior ones equal in length; palatine teeth equal; anterior teeth of lower jaw larger than the remainder. Above brownish red, sides of posterior part of body and tail blackish olive; on the anterior part of back some black, oblong transverse spots, largest on the neck, white-edged; a yellow streak from the lower posterior angle of eye to the side of neck; beneath yellowish, with a punctated line on each side. Length of cleft of mouth  $\frac{3}{8}$ "; length of tail 2"; total length  $11\frac{1}{2}$ ".

## 2. SCYTALE, Boie.

Body and tail moderate, rather elongate, rounded; head moderate, rather broad, flat above; snout rounded, rather elongate; nostril between two shields; pupil subelliptical; shields of head regular; one loreal, one anterior, two posterior oculars. Scales smooth; ventral plates not recurved on the sides; subcaudals one-rowed; one posterior maxillary tooth longer and furrowed, anterior teeth nearly equal in length. South America.

Scytale, *Dum. & Bibr.* vii. p. 996. *Lycodon cloelia*, var., *Schleg. Ess.* ii. p. 114. Scytale, *Wagl. Syst. Amph.* p. 187; *Wied, Abbildg. & Beitr.*; *Gray, Synops.* p. 17; *Boie, Isis*, 1827. Scytale, sp., *Merr. Tent.* p. 91.

### 1. SCYTALE CORONATUM.

On the hinder part of the body or on the tail, the scales of the vertebral row larger.

Var. A. Scytale coronatum, *Dum. & Bibr.* vii. p. 999. *Pseudoboa coronata*, *Schneid. Hist. Amph.* p. 286. *Boa coronata*, *Daud. Hist. Rept.* v. 220. Scytale coronata, *Merr. Tent.* p. 91; *Boie, Isis*, 1827, p. 517; *Cuvier, Règne Anim.*; *Wagl. Syst. Amph.* p. 187; *Gray, Syn.* p. 17. *Lycodon cloelia*, var., *Schleg. Ess.* pl. 4. f. 12, 13.

Head and neck black, with a white collar.

\* Head short, rounded in front; hinder angle of the rostral shield obtuse, not reaching between the frontals.

a. Adult. Brazil. From Dr. Gardiner's Collection.

b. Adult. Rio Janeiro. Presented by A. Fry, Esq.

c. Adult: head injured. Cayenne. Presented by H. C. Rothery, Esq.

d. Young. Caraccas.

e. Young. Caraccas.

f. Adult. Brazil. Head rather elongate.

\*\* Head elongate, rather pointed; hinder angle of the rostral shield acute, reaching far between the frontals.

g. Adult. Pernambuco. Presented by J. P. G. Smith, Esq.

h. Adult. Pernambuco.

Var. B. *Scytale neuwiedii*, *Dum. & Bibr.* vii. p. 1001. *Scytale coronata*, *Wied, Abbildg.* pl. . & *Beitr.* p. 241. *Lycodon cloelia*, var., *Schleg. Ess.* p. 116.

Head and neck dark brown, without collar; body whitish or pale brown, each scale brown-edged, or brown or black.

\* Head short, rounded in front; hinder angle of the rostral shield obtuse, not reaching between the frontals.

i. Adult. South America. From Mr. Cuming's Collection.

k. Adult. Caraccas. Above very dark brown.

l. Half-grown. Para. From Mr. Stevens's Collection.

m. Half-grown. Rio Janeiro. Presented by A. Fry, Esq. Back lead-coloured, sides and belly white.

\*\* Head elongate, rather pointed; hinder angle of the rostral shield acute, reaching far between the frontals.

n. Adult. Pernambuco. Presented by J. P. G. Smith, Esq.

o. Adult: bad state. Pernambuco. Presented by J. P. G. Smith, Esq.

p. Adult. Pernambuco. Presented by J. P. G. Smith, Esq.

q. Adult. Above uniform lead-coloured.

r. Adult. Trinidad. Rostral plate very thick and swollen.

s. Adult. America. Above uniform brown.

t. Half-grown. America. Above uniform brown.

*Scytale neuwiedii* of Duméril and Bibron is only a nominal species, as is proved by the specimens in the Museum Collection. Specimens from Pernambuco, which may be regarded as *Sc. coronatum* or *Sc. neuwiedii*, show the same peculiarity of the rostral shield.

### 3. OXYRHOPUS, *Wagler*.

Body rather elongate, sometimes slender and compressed; tail moderate; head rather depressed, with flat crown, and not short, but broad, depressed muzzle, generally not very distinct from neck; eye moderate, pupil elliptical, erect. Shields of head regular, vertical, generally produced behind, and pointed; one (exceptionally two) anterior, two posterior oculars; one loreal; two nasals, nostril between. Scales smooth, rhombic, in nine-

teen rows (exceptionally in fifteen or seventeen), those of the back equal to the others, exceptionally rather larger; anal entire; subcaudals two-rowed. Posterior maxillary tooth longest, grooved; anterior ones equal in length. South America.

Brachyruton, Oxyrhopus, *Dum. & Bibr.* vii. p. 1002, &c. Lycodon, sp., *Schleg. Ess.* ii. p. 122, &c. Oxyrhopus, Erythrolamprus, sp., Cloelia, sp., *Wagl. Nat. Syst. Amph.* pp. 185, 187. Natrix, sp., Coluber, sp., *auct. prior.*

## 1. OXYRHOPUS PLUMBEUS.

Coluber plumbeus, *Wied, Reise nach Brasil.* i. p. 95; *Beitr.* i. p. 314; *Abbildg.* xiii. pl. 6. Duberria plumbea, *Fitz. Neue Class. der Rept.* p. 56. Hydrosopus plumbeus, *Fitz. Syst. Rept.* p. 25. Boie, *Isis*, 1825, p. 537; *Duvernoy, Ann. Sc. Nat.* xxvi. pl. 7. f. 3, 4, anatomy; *Schleg. Ess.* pl. 6. f. 3-4. Brachyruton plumbeum, *Dum. & Bibr.* vii. p. 1004.

Above uniform lead-coloured, beneath whitish; loreal short.

- a. Adult: head injured. Caraccas. From Paris.
- b. Adult: tail injured. Demerara. Presented by Capt. Sabine.
- c. Adult. Berbice.
- d. Adult. West Indies. Presented by Colonel Reid.
- e. Adult: head injured. America. From Mr. Mather's Collection.
- f. Adult: bad state. America. Presented by the Zoological Society.
- g. Half-grown. America. From the Haslar Collection.

## 2. OXYRHOPUS CLOELIA.

Coluber cloelia, *Daud. Hist. Rept.* vi. pl. 78. Natrix cloelia, *Merr. Tentamen*, p. 98. Cloelia daudini, *Fitz. Neue Classif. der Rept.* p. 55; *Wagl. Syst. Rept.* p. 187. Deiropeda cloelia, *Fitz. Syst. Rept.* p. 25. Cloelia (Natrix) occipitalis, *Wagl. l. c.*, and *Serp. Bras.* pl. 6. f. 2. Lycodon cloelia, var., *Schlegel, Essai*, p. 115. Brachyruton cloelia, *Dum. & Bibr.* vii. p. 1007.

Pale brown or whitish, each scale brown-edged; head and neck dark brown with a white collar. Loreal short.

- a. Ten inches long. Surinam.
- b. Ten inches long. America.
- c. Twenty inches long. America. From the Haslar Collection.
- d. Twelve inches long. Demerara. From Mr. Snellgrove's Collection.
- e, f. Twenty-six inches long. South America. From the Collection of the Zoological Society.



## 3. OXYRHOPUS FORMOSUS.

*Coluber formosus*, Wied, Nov. Act. Cæs. Leop. Carol. 1820, t. 4, and *Reise nach Brasilien*, i. p. 257, ii. p. 75, and *Abbildg. zur Naturgesch. Bras.* t. , and *Beiträge zur Naturgesch.* i. p. 381. *Erythrolamprus formosus*, Wagl. Syst. Amph. p. 187. *Oxyrhopus formosus*, Dum. & Bibr. p. 1022.

One anterior ocular, not reaching the vertical; two temporal shields in contact with oculars; loreal elongate. Body with black cross bands; head and neck uniform red (in spirits, whitish).

a. Adult. South America. Muzzle black.

b. Adult. South America. From the Zoological Society's Collection. Muzzle black.

## 4. OXYRHOPUS PETOLARIUS.

*Coluber petolarius*, Linn. Mus. Ad. Fried. t. 9. f. 2, and Syst. Nat. i. p. 387; Daubent. Encycl. Meth. p. 660; Lacép. Hist. Nat. Quadr. Serp. ii. p. 207; Bonnat. Ophiol. p. 48; Latr. Rept. iv. p. 105; Daud. Rept. vi. p. 307. *Coluber pethola*, Shaw, Zool. iii. p. 484; Merr. Tent. p. 109. *Oxyrhopus petolarius*, Wagl. Syst. Amph. p. 185. *Lycodon petolarius*, Schleg. Ess. ii. p. 122.

One anterior ocular, reaching the vertical; loreal elongate. Body with alternate brown and white (in spirits) cross bands; all white (red) bands being equally broad.

Var. A. *Oxyrhopus multifasciatus*, Dum. & Bibr. p. 1019. Numerous red and black bands, all being equally broad; belly uniform yellowish. One temporal shield in contact with oculars.

a. Adult. Caraccas. From M. Parzudaki's Collection.

b. Half-grown. America. Presented by the College of Surgeons.

Var. B. *Oxyrhopus spadiceus*, Dum. & Bibr. p. 1028. Like former, but two temporal shields in contact with oculars.

c. Young. Venezuela. From Mr. Dyson's Collection.

Var. C. *Oxyrhopus petolarius*, Dum. & Bibr. p. 1033. Red bands much narrower than the brown ones. Belly uniform. Two temporal shields in contact with oculars.

d. Adult. Demerara. From Mr. Snellgrove's Collection.

e. Adult. Demerara. From Mr. Snellgrove's Collection.

f. Adult. S. America. From the Zoological Society's Collection.



Var. D. Like former; only one temporal in contact with the oculars. ? *O. rhombifer*, Dum. & Bibr. p. 1018.

g. Adult. Columbia. From Mr. Brandt's Collection.

h. Adult. South America. From Mr. Mather's Collection.

Var. E. Like former, having on one side one temporal in contact with oculars, on the other two.

i. Adult. Venezuela. From Mr. Dyson's Collection.

j. Adult. America.

Var. F. *Oxyrhopus subpunctatus*, Dum. & Bibr. p. 1016. Like former; belly punctated with black; two temporal shields in contact with oculars.

k, l. Adult and half-grown. Demerara. From Mr. Snellgrove's Collection.

Var. G. Black, with about fifteen narrow white cross bands, sometimes interrupted on the back; one or two temporal shields in contact with oculars; scales of the back equal.

m. Adult. Bahia. From M. Parzudaki's Collection as *O. sebæ*.

n. Adult: injured. Brazil. From Mr. Mather's Collection.

o. Half-grown. South America. From the Zoological Society's Collection.

## 5. OXYRHOPUS IMMACULATUS.

*Dum. & Bibr.* p. 1029.

One anterior ocular, reaching the vertical; two temporal shields in contact with oculars. Loreal elongate. Above uniform dark olive, beneath uniform yellowish.

a. Adult. Brazil. From the Haslar Collection.

b. Adult. Pernambuco.

## 6. OXYRHOPUS BIPRÆOCULARIS.

*Dum. & Bibr.* p. 1030.

Two anterior oculars.

Perhaps only a variety of *Oxyrhopus petolaris*.

a. Adult: head injured. Berbice.

## 7. OXYRHOPUS TRIGEMINUS.

*Lycodon formosus*, *Schleg. Ess.* ii. pl. 4. f. 8, 9. *Oxyrhopus trigeminus*, *Dum. & Bibr.* p. 1013.

One anterior ocular, reaching the vertical; one temporal in

contact with oculars; loreal elongate. Red (in spirits white), with black cross bands, always three together, middle one broadest.

*a, b.* Adult. Bahia. Presented by Mr. Ker.

*c, d.* Half-grown. Brazil. Presented by Mr. Bowerbank.

*e.* Half-grown. Brazil. From M. Parzudaki's Collection as *Oxyrhopus virginianus*.

*f, g.* Adult: not good state. Demerara. Presented by Captain E. Sabine.

*h.* Adult. South America.

*i.* Adult: bad state. South America. Presented by W. F. Evans, Esq.

*k.* Half-grown. Mexico. From Mr. Hugo Finck's Collection.

## 8. OXYRHOPUS DOLIATUS.

*Dum. & Bibr.* p. 1020.

One anterior ocular, not reaching the vertical; loreal elongate. Red (in spirits yellowish), with numerous irregular, band-like spots; crown of head yellowish, with large brown spots.

*a.* Adult. Sine patria. From the College of Surgeons.

*b.* Adult: bad state. Trinidad. Presented by Mr. Chantelier.

Our specimens, exhibiting many differences from Duméril's description, require the following notices:—

*Description.*—In general appearance similar to a *Dipsas*. Body slender, much compressed; tail moderate, tapering; head depressed, with flat crown, broad behind, distinct from neck, with short, broad, obtuse snout; eye moderate, pupil elliptical, erect. Rostral shield very broad and narrow, raised on the surface of muzzle, rounded behind; anterior frontals small, five-sided; posterior ones much larger, quadrangular; vertical moderate, with somewhat convergent outer edges and a right angle behind; occipitals moderate, forked, rounded behind; superciliary moderate; anterior ocular just reaching the surface of crown, three posterior ones; upper labials eight, fourth and fifth coming into the orbit; loreal elongate; temporals small, about seven, two of which are in contact with oculars. Scales smooth, in nineteen rows, those of the three dorsal rows larger than the remainder, and nearly square; anal entire. Posterior maxillary tooth longest, grooved; anterior ones equal in length. Yellowish (in spirits); many scales entirely black, or only at the tip, forming together irregular band-like spots. Shields of head brown, each with a narrow lighter edge. No temple-streak; beneath yellowish, with quadrangular black spots, more

numerous on the posterior part of body, each occupying a half plate or an entire one. Length of cleft of mouth  $\frac{1}{2}$ "; length of tail 7"; total length 29".

## Fam. XII. LYCODONTIDÆ.

Body generally moderate, rounded or slightly compressed, in one genus very elongate and slender; tail moderate, rounded, tapering; head oblong, with flat crown and generally with depressed, broad, rounded muzzle. Eye rather small, pupil elliptical, erect; shields of crown regular, generally posterior frontals very large; lateral shields of head sometimes complete, sometimes irregular; one or two nasals, one or no loreal, never more than two anterior and two posterior oculars. Scales rhomboid or ovoid, sometimes those of the vertebral line larger; anal generally entire; subcaudals bifid or entire. Anterior teeth of both jaws longest (except in *Odontomus*); without any grooved tooth in front or behind.

*Lycodon*, Schlegel, *Essai*, ii. p. 104. *Lycodontiens*, Dum. & Bibr. vii. p. 352.

### *Synopsis of the Genera.*

1. **SIMOCEPHALUS.** Body and tail very slender; head spatulate; each scale of the vertebral series with two sharp keels. West Africa.
2. **LAMPROPHIS.** Two nasals, nostril between; one loreal; one anterior, two posterior oculars; two labials coming into the orbit. Scales smooth, in twenty-three rows; those of the vertebral line larger. South Africa.
3. **ALOPECION.** Two nasals, nostril between; one loreal; one anterior, two posterior oculars; three labials coming into the orbit. Scales smooth, much imbricate, those of the vertebral line larger. West Africa.
4. **LYCOPHIDION.** Two nasals, anterior one pierced by the nostril; one loreal, one anterior, two posterior oculars. Scales smooth. South Africa; West Africa.
5. **METOPORHINA.** Body rounded. One nasal, pierced by the nostril; one loreal, not reaching the orbit; one anterior, two posterior oculars. Scales smooth. West Africa.
6. **BOODON.** Scales in twenty-three to thirty-one rows, those of the back equal; subcaudals bifid. S. and W. Africa.
7. **HOLUROPHOLIS.** Scales in twenty-five rows; subcaudals entire. West Africa.

8. **LYCODON.** Two nasals, nostril between; one loreal; one (or two) anterior, two posterior oculars. Scales smooth, not much imbricate, those of the vertebral line generally not larger, in seventeen rows. East Indies.
9. **ISOSCELIS.** Two nasals, nostril between; loreal elongate; no anterior, two posterior oculars.
10. **LEPTORHYTAON.** Body round. One nasal, pierced by the nostril; loreal coming into the orbit; one anterior, two posterior oculars. India.
11. **ODONTOMUS.** Body compressed. One nasal, pierced by the nostril; loreal coming into the orbit; one anterior, two posterior oculars. India.
12. **OPHITES.** Scales keeled, those of the back equal; subcaudals bifid. East Indies.
13. **CERCASPIS.** Scales keeled; subcaudals entire. Ceylon.
14. **CYCLOCORUS.** Scales smooth, in seventeen rows; subcaudals entire. Philippine Islands.

### 1. SIMOCEPHALUS, Gray.

Body and tail very slender, compressed; head large, oblong, much depressed; muzzle very broad, truncated in front, spatulate; eye moderate; pupil subelliptical; two nasals, nostril between, large round, open; one loreal, one anterior and one posterior ocular; scales of the sides elongate, lanceolate, sharply keeled, of the vertebral series broad, six-sided, with two sharp keels. Subcaudals two-rowed; ventral plates slightly keeled. Anterior teeth of both jaws longest. Western Africa.

*Heterolepis*, sp., *A. Smith, Ill. of S. Afr. note*; *Dum. & Bibr.* vii. p. 419. *Simocephalus*, Gray, *MS. in Brit. Mus.*

The heads of our specimens and of *Heterolepis capensis*, figured by Dr. Andrew Smith, exhibit as great difference in form, as those of *Dendrophis* and *Dryiophis*. Not having specimens of Dr. Smith's snake in the Museum collection, we think we are justified in applying to our specimens the generic denomination which was given to them by Dr. Gray many years since.

### 1. SIMOCEPHALUS POËNSIS.

*Heterolepis poënsis*, *A. Smith, Ill. of S. Afr. note*, p. . *Simocephalus poënsis*, Gray, *MS. in Brit. Mus.* *Heterolepis bicarinatus*, (*Schlegel*) *Dum. & Bibr.* p. 422.

Uniform blackish brown above, paler beneath.



- a. Adult. West Africa. Niger Expedition.
- b. Adult. Old Calabar. Presented by W. Logan, Esq.
- c. Half-grown. Africa.

In the stomach of specimen *b*, a large *Cordylus* was found.

## 2. LAMPROPHIS, *Fitzinger*.

Body stout, rounded; tail short, not distinct from trunk; head similar to *Coronella*, flat above, broad behind, with short muzzle; posterior frontals moderate, vertical five-sided; two labials coming into the orbit; occipitals rather elongate; two nasals, nostril between; one short loreal, one anterior, two posterior oculars. Scales smooth, rhomboid, not much imbricate, small, in twenty-three rows, those of the vertebral row rather larger; anal entire; subcaudals two-rowed. Anterior teeth of upper jaw rather longer; palatine teeth of equal length. South Africa.

Lamprophis, *Fitz. Syst. Rept.* p. 25; *Dum. & Bibr.* vii. p. 427; *Coronella*, sp., *Schlegel, Ess.* ii. p. 75; *Lycodon*, sp., *Boie, Isis*, 1827, p. 523; *Cerastes*, sp., *Coluber*, sp., *auct. prior.*

### 1. LAMPROPHIS AURORA.

*Sela*, ii. 78. 3. *Coluber aurora*, *Linn. Mus. Ad. Fried.* t. 19. f. 1, and *Syst. Nat.* i. p. 379; *Shaw, Zool.* iii. p. 544; *Daud. Rept.* vii. p. 5; *Merr. Tent.* p. 97. *Cerastes aurora*, *Laur. Syn.* p. 82; *Daubent. Quadr. Ovip. Serp.* p. 590; *Lacép. Quadr. Ovip. Serp.* ii. pp. 98 & 296; *Bonnat. Ophiol.* p. 53; *Latr. Rept.* iv. p. 172. *Lycodon aurora*, *Boie, l. c.* *Coronella aurora*, *Schleg. l. c.* *Lamprophis aurora*, *Fitz. l. c.*; *Dum. & Bibr.* p. 431.

Above brownish (in spirits), each scale darker-edged, with a yellow dorsal band; beneath uniform whitish.

- a. Adult. Cape of Good Hope. Presented by Dr. Lee.
- b. Half-grown. Cape of Good Hope.
- c. Half-grown. S. Africa. Presented by Sir J. Macgregor.

## 3. ALOPECION, *Dum. & Bibr.*

Body rather elongate and compressed; tail short, not very distinct from trunk; head moderate, ovoid, with rounded crown, broad and rounded muzzle; posterior frontals moderate; three labials coming into the orbit; two nasals, nostril between; one

loreal, one anterior, two posterior oculars\*. Scales smooth, rhomboid, much imbricate, in seventeen or twenty-three rows, those of the vertebral line larger; anal entire; subcaudals two-rowed. Anterior teeth of upper jaw much longer; palatine teeth of equal length. Africa.

*Alopecion*, *Dum. & Bibr.* vii. p. 416.

# 1. ALOPECION ANNULIFER.

*Dum. & Bibr. l. c.*

Scales in twenty-three rows. Africa?

# 2. ALOPECION FASCIATUM.

Scales in seventeen rows; on each side a series of black erect cross bands.

a. West Africa. From Mr. Rich's Collection.

*Description of the specimen.*—Body rather elongate, compressed; tail short, not very distinct from trunk, tapering; head moderate, ovoid, rather distinct from neck, with rounded crown, and moderate, broad, rounded muzzle; eye moderate, pupil elliptical. Rostral shield broader than high, reaching the surface of snout, rounded behind; frontals moderate, anterior ones rather small; vertical broader than long, much in contact with ocular, nearly triangular with convex outer edges, and a right angle behind; occipitals moderate, rounded and forked behind, much bent down on the sides, in contact with both oculars; superciliary small; two posterior oculars; anterior one raised above the surface of crown. Loreal large; two nasals, anterior one largest, nostril between; seven upper labials, third forming the lower half of anterior edge of eye; fourth and fifth reaching the lower edge; four or five moderate temporal shields, foremost in contact with lower ocular; terminal shield of lower jaw triangular elongate, sharply pointed behind; first pair of lower labials forming together a long suture behind the terminal one; three pairs of chin-shields, front pair largest. Scales moderate, much imbricate, in not very oblique rows, those of the vertebral line rather larger and broader, those of the sides narrow; seventeen longitudinal rows; anal entire; subcaudals two-rowed. Anterior longer teeth of the upper jaw separated from the hinder ones by an interspace; those of lower jaw in a continuous series; anterior ones longest. Above reddish brown, beneath paler; head uniform black; on each side a series of thirty-four black

\* In the characters of the genus, Duméril states two posterior oculars, in the description of his only species three.

erect cross bands, alternate with those of the other side; belly uniform. Length of cleft of mouth  $\frac{1}{4}$ " ; length of tail  $\frac{5}{6}$ " ; total length 8".

#### 4. LYCOPHIDION, *Fitzinger*.

Body moderate, rounded; tail short; head depressed; pupil elliptical, erect. Shields of head regular: posterior frontals large, vertical three-sided, occipitals elongate; two nasal shields, the anterior one pierced by the nostril, one loreal, one anterior, two posterior oculars. Scales smooth, rhomboid, in seventeen rows, those of the vertebral row in adult specimens evidently larger; subcaudals two-rowed. South Africa.

*Lycophidion*, *Fitzinger*, *Syst. der Rept.* p. 27; *Dum. & Bibr.* vii. p. 409. *Lycodon*, sp., *Schleg. Ess.* ii. p. 111.

##### 1. LYCOPHIDION HORSTOKII.

*Lycodon horstokii*, *Schlegel, Ess.* pl. 4. f. 10, 11; *Smith, Ill. of S. Afr. Rept.* pl. 5. *Lycophidion horstokii*, *Fitz. l. c.*; *Dum. & Bibr.* p. 412.

Brown or black, each scale with a bluish-white point at the tip.

- a. Adult. West Africa. Old Collection.
- b. Young. Angola. From Mr. Rich's Collection.
- c. Adult: rather discoloured. West Africa. From Mr. Argent's Collection.
- d. Female: two feet long. West Africa. From Mr. Fraser's Collection. The bluish-white edges visible only on the posterior part of body; in the oviduct I found five mature eggs, but without embryo.

##### 2. LYCOPHIDION SEMIANNULIS.

*Lycophidion semiannulis*, *Peters in Wiegman. Archiv*, 1855, p. 51.

Above bluish black, on each side a series of black erect cross bands; beneath paler, each ventral plate with a whitish lateral spot; lips yellow-edged. Mozambique.

#### 5. METOPORHINA, *Günther*.

*Lycodon* with moderate, rounded body and short tail; head depressed, with flat crown, rounded in front; eye small; pupil elliptical, erect; rostral shield not protruding, broad, very short, just reaching the surface of head; anterior frontals small, very narrow, posterior large; vertical three-sided; one nasal shield, pierced by the nostril; nostril situated near the end of muzzle, raised on the surface of forehead; loreal large, quadrangular, oblique, not reaching the orbit; one anterior orbital, raised on

the crown, situated above the third upper labial, both forming together the anterior edge of eye; fourth and fifth labial shields forming the lower edge; two posterior oculars. Scales smooth, in seventeen rows, those of the back equal. Subcaudals two-rowed. West Africa.

Hypsirhina, sp., *Gray, Zool. Misc.* p. 67. *Lycodon*, sp., *Gray, MS. Brit. Mus.*

# 1. METOPORHINA IRRORATA.

*Coluber irroratus*, *Leach in Bowdich's Mission to Ashantee*, p. 494. *Hypsirhina maura*, *Gray, Zool. Misc.* p. 67. *Lycodon maura*, *Gray, MS. Brit. Mus.*

Black-brown, with a few irregular darker spots; rather paler beneath.

a. Adult. Gold Coast. Presented by T. E. Bowdich, Esq.

b. Adult. Fantee, Africa. Presented by T. E. Bowdich, Esq.

## 6. BOODON, *Dum. & Bibr.*

Body moderate, rounded; tail moderate, rather short; head rather depressed, with flat crown, rounded in front; pupil elliptical, erect; shields of head regular; two nasals, nostril between; one loreal, one or two anterior, two posterior oculars. Scales smooth, small, in twenty-three to thirty-one rows, those of the back equal. Anal entire, subcaudals two-rowed. South and Western Africa.

*Boaedon*, *Eugnathus*, *Dum. & Bibr.* vii. pp. 357, 404. *Lycodon*, sp., *Schlegel, Essai*, ii. p. 104.

# 1. BOODON GEOMETRICUS.

*Lycodon geometricus*, (*Boie*) *Schleg. Ess.* ii. p. 111; *Smith, Ill. of S. Afr.* pl. 22 (adult and young). *Eugnathus geometricus*, *Dum. & Bibr.* p. 406.

Scales in twenty-three or twenty-five rows. Head with two whitish lines on each side, above and below the eye; body with a yellowish lateral band.

a. Very large specimen. Old Calabar. Presented by W. Logan, Esq.

b. Adult. Old Calabar. Presented by W. Logan, Esq.

c. Adult. Western Africa. From Mr. Rich's Collection.

d. Young. Interior of Ashantee.—In all these specimens the blackish colour of the back extending on the belly; in a and b, the lateral band of body not visible.

e. Half-grown. Fernando Po. From the Collection of the Zoological Society.



2. BOODON INFERNALIS\*.

Scales in twenty-three or twenty-five rows. Above uniform black, beneath paler.

a. Adult. Port Natal. Presented by the Rev. H. Calloway.

b. Young. Cape of Good Hope. Presented by Dr. John Lee, F.R.S.

c, d. Adult. South Africa. From the Haslar Collection.

*Description*.—Body moderate; tail rather short, not distinct from trunk, tapering; head moderate, rather distinct from neck, with flat crown and rounded muzzle. Eye rather small, pupil subelliptical. Rostral moderate, rounded above, just reaching the surface of snout; frontals moderate; vertical five-sided, tapering, sometimes the outer edges united and forming a curved line; sharply pointed behind; occipitals moderate, rounded behind; superciliaries rather narrow; two posterior and two anterior oculars; in one specimen the anterior united; loreal elongate; two nasals, nostril round, open. Eight upper labials, third, fourth and fifth coming into the orbit; six temporal shields, rhomboid, of nearly equal size, only one in contact with lower post-ocular. First pair of lower labials forming a long suture behind the terminal one; two pairs of chin-shields behind. Scales smooth, rhomboid, in twenty-three or twenty-five rows; anal entire. Anterior teeth in both jaws longest, those of the lower jaw separated from the hinder ones by an interval. Entirely uniform black; belly paler, sometimes very pale. Length of cleft of mouth  $\frac{3}{4}$ " ; length of tail 5" ; total length 27".

3. BOODON UNICOLOR.

*Lycodon unicolor*, Boie, *Isis*, 1827, p. 551; *Schlegel, Ess.* ii. p. 112. *Boaedon unicolor*, Dum. & Bibr. p. 359.

Scales in twenty-nine or thirty-one rows. Uniform blackish ash or brown, beneath paler.

a. Adult. West Africa. From Mr. Rich's Collection.

b. Adult. West Africa. From Mr. Rich's Collection.

c. Adult. West Africa. From Mr. Rich's Collection.

d. Adult. Africa.

e. Adult: bad state. Africa.

4. BOODON LINEATUS.

*Boaedon lineatum et capense*, Dum. & Bibr. vii. pp. 363, 364 (not *Lycodon capensis*, Smith); *A. Dum. in Rev. Mag. Zool.* 1856, p. 464.

\* *Boaedon nigrum*, Fischer, *Abhdlg. Gebiet. Naturw. Hamb.* 1856, p. 91, may prove to be identical with the above species.

Scales in twenty-nine or thirty-one rows. Head with two whitish streaks on each side, sometimes extending along the sides of trunk (*B. lineatum*, D. & B.).

Var. A. *capensis*.

- a. Adult. West Africa. From Mr. Rich's Collection.
- b. Young and egg. Cape of Good Hope.
- c. Adult. Africa. From Mr. Argent's Collection.

Var. B. *lineata*.

- d. Adult. Ashantee. From the Leyden Museum as *Lyc. geometricus*, but with twenty-nine rows.
- e. Adult. Coast of Guinea.
- f. Adult: not good state. Africa. From the Haslar Collection.
- g. Young. Africa. From Mr. Bartlett's Collection.
- h. Half-grown: bleached. Africa.

## 7. HOLUROPHOLIS, *Duméril*.

Body rather slender, rounded, tail moderate; head moderate, flat above, rounded in front; pupil elliptical, erect; rostral shield rounded above, not reaching the surface of head; anterior frontals small, posterior large; vertical moderate, with convergent lateral edges; *two nasals, nostril between*; one loreal, one anterior, two posterior oculars. Scales smooth, short, rhomboid, rather small, in 25 rows. Anal and subcaudals entire. Western Africa.

Holuropholis, *A. Duméril*, *l. c.* p. 465.

### 1. HOLUROPHOLIS OLIVACEUS.

*A. Duméril*, *l. c.* p. 466.

Uniform blackish ash, beneath paler.

- a. Adult. West Africa, Niger Expedition. From Mr. Fraser's Collection.
- b. Half-grown. West Africa, Niger Expedition. From Mr. Fraser's Collection.
- c. Adult: not good state. West Africa.

*Description*.—Body moderate, rather slender; tail moderate, not distinct from trunk, tapering; head moderate, with flat crown and rounded muzzle, rather distinct from neck; eye rather small, with elliptical, erect pupil. Rostral broad, triangular, not reaching the surface of head; anterior frontals small, spheroidal; posterior ones much larger, bent on the sides; vertical five-sided, with convergent lateral edges; occipitals rather small, rounded behind; two posterior oculars; anterior one large, reaching the

vertical; loreal large; nostril evidently between two shields, anterior one larger, and forming a part of the front side of muzzle; eight upper labials, fourth and fifth coming into the orbit; medial chin-shield narrow, elongate; first pair of lower labials very elongate, forming together a suture behind the medial chin-shield; about eight temporal shields, the foremost larger and in contact with the lower post-orbital, the hinder ones scale-like. Scales smooth, rhombic, small, in twenty-five rows, those of the back smaller than the remainder; anal and subcaudal plates not divided. Coloration as above mentioned, belly sometimes in the middle whitish. The longer teeth of both jaws form a continuous series with the remainder. Length of cleft of mouth  $\frac{3}{4}$ "; length of tail  $5\frac{1}{2}$ "; total length 23".

I found in the stomach of the largest specimen several young mice; the general food of the South African *Lycodontidae* appears to consist of these small mammalia.

## 8. LYCODON, Boie.

Body rather elongate, rounded or slightly compressed; tail moderate; head depressed, with flat crown and broad, rather obtuse muzzle; pupil elliptical, erect; shields of head regular; two nasals, nostril between; one loreal, one or two anterior, two posterior oculars. Scales smooth, moderate, not much imbricate, in seventeen rows, those of the back equal or not much larger than the others. Anal entire; subcaudals two-rowed. East Indies.

*Lycodon*, Wagl. *Syst. Amph.* p. 186; *Dum. & Bibr.* vii. p. 367. *Lycodon*, sp., Boie, *Isis*, 1826, p. 981; *Schleg. Ess.* ii. p. 104. *Coluber*, sp., *Natrix*, sp., *auct. prior.*

### 1. LYCODON AULICUS.

*Dum. & Bibr.* p. 369.

Rostral just reaching the surface of head; one loreal, one anterior ocular. Yellowish brown, with large brown blotches, more or less confluent, sometimes separated by lighter cross bands, entirely or partially, sometimes lineolated or punctulated with the ground colour; sometimes uniform.

There are innumerable intermediate forms of coloration between the following varieties.

Var. A. *Russell, Ind. Serp.* ii. 39.

a. Adult. India. Presented by Colonel Hopkins.

b. Half-grown. Ceylon.

- c. Young: not good state. Madras. Presented by J. E. J. Boileau, Esq.  
 d. Adult: bleached. India.  
 e. Adult: bad state. India.

Var. B. Above uniform brown, belly whitish; a white collar.

- f. Young. Philippine Islands. From Mr. Cuming's Collection.

Var. C. *Russell*, i. pl. 16.

*Coluber aulicus*, *Linn. Mus. Ad. Fried.* i. t. 12, f. 2, and *Syst. Nat.* i. p. 381; *Laur. Syn. Rept.* p. 74; *Lacép. Hist. Nat. Quadr. Ovip.* ii. p. 298; *Shaw, Zool.* iii. p. 434; *Daud. Rept.* vi. p. 422; *Merr. Tent.* p. 106. *Coluber striatus*, *Shaw, Zool.* iii. p. 527. *Coluber malignus*, *Daud. Rept.* vii. p. 46; *Merr. Tent.* p. 98. *Coluber hebe*, *Daud. Rept.* vi. p. 385; *Merr. Tent.* p. 95. *Lycodon aulicus*, *Boie, Isis*, 1826, p. 981; *Wagl. Syst.* p. 186; *Cantor, Catal.* p. 68. *Lycodon hebe*, *Wagl. Syst.* p. 186; *Schleg. Ess.* ii. pl. 4. f. 1-3.

- g-i. Adult, half-grown, and young. Ceylon. Presented by Captain Gascoigne.

k. Adult. Ceylon. Presented by R. Templeton, Esq.

l. Adult. Ceylon. Presented by A. Paul, Esq.

m. Adult male. Ceylon.

n. Adult. Ceylon.

o. Adult. Ceylon. From Mr. Cuming's Collection.

p. Adult. Ceylon. From Mr. Cuming's Collection.

q. Half-grown. Ceylon. Presented by General Hardwicke.

r. Half-grown. Ceylon. From Mr. Cuming's Collection.

s. Half-grown. Ceylon.

t. Adult. Malabar. From M. Parzudaki's Collection.

u. Adult. Madras. Presented by J. E. J. Boileau, Esq.

v. Adult: discoloured. Madras. Presented by J. E. J. Boileau, Esq.

w. Young. Madras. Presented by J. E. J. Boileau, Esq.

x. Young. Madras. Presented by Walter Elliott, Esq.

y. Young. Madras. Presented by J. C. Jerdon, Esq.

z. Adult: not good state. Nepal. Presented by B. H. Hodgson, Esq.

a. Half-grown. Nepal. Presented by B. H. Hodgson, Esq.

β, γ. Adult and half-grown. Bengal. Presented by W. C. Masters, Esq.

δ. Adult. Bengal. Presented by General Hardwicke.

ε-θ. Adult and half-grown: discoloured. Bengal. Presented by General Hardwicke.

ζ. Adult. India.



- ι-λ. Adult : not good state. India. Presented by W. C. Masters, Esq.  
 μ. Adult. India.  
 ν. Adult : bleached. India. Presented by Dr. Russell.  
 ξ-ς. Half-grown : not good state. India. Presented by W. C. Masters, Esq.  
 τ. Young. India. Presented by General Hardwicke.  
 υ. Adult. Philippine Islands. From Mr. Cuming's Collection.  
 φ. Adult. India. Presented by the Zoological Society.  
 ψ. Adult. India. From Mr. Argent's Collection.  
 ω. Adult : bad state. India. Presented by Mrs. Mauger.  
 aa. Adult. India.  
 bb-dd. Adult : bad state. India. From Mr. Argent's Collection.  
 ee. Half-grown. India.  
 ff. Half-grown. India.  
 gg. Young. India. From Mr. Warwick's Collection.  
 hh. Young. India. Old Collection.

Var. D. *Russell, Ind. Serp.* ii. pl. 37. *Lycodon capucinus*,  
*Boie.* *Lycodon atro-purpureus*, *Cantor.*

- ii. Adult : bleached. Java. From Mr. Frank's Collection.  
 kk. Adult. Java. Presented by J. Bowring, Esq.  
 ll. Young. Java. Presented by J. Bowring, Esq.  
 mm. Adult : bad state. Borneo ? Presented by Captain Sir E. Belcher.  
 nn. Adult. Philippine Islands. From Mr. Cuming's Collection.  
 oo. Half-grown. Madras. Presented by Walter Elliott, Esq.  
 pp. Adult. Tenasserim Coast. Presented by Dr. Packmann.  
 qq. Half-grown. India.

Var. E. *Schlegel, Ess.* ii. pl. 4. f. 4, 5.

No specimen in the British Museum.

Var. F. *Russell, Ind. Serp.* i. pl. 29 (belongs perhaps to *Coryphodon fasciolatus*).

## 2. LYCODON MÜLLERI.

*Dum. & Bibr.* p. 382.

Rostral raised above the surface of snout, extending between the frontals ; two anterior oculars. Greyish brown, with a dorsal series of large rounded brown spots.

a-c. Adult. Philippine Islands. From Mr. Cuming's Collection.

*Description.*—Body rather slender, compressed ; tail elongate :

head depressed, triangular, distinct from neck, with flat crown, broad and rounded muzzle; eye moderate, pupil elliptical, erect. Rostral shield broader than high, triangular, raised above the surface of snout, pointed behind, and extending between the anterior frontals; anterior frontals moderate, five-sided; posterior ones much larger, five-sided, but bent on the side; vertical moderate, with straight, not much convergent outer edges, and a right angle behind; occipitals moderate, forked and rounded behind; two anterior and two posterior oculars; upper anteorcular raised on the surface of crown; loreal rather elongate, two nasals, nostril between; nine upper labials, fourth and fifth forming the lower edge of orbit, sixth to ninth nearly equal in size and structure; about twelve scale-like temporal shields, two of which are in contact with oculars. Scales smooth, rhomboid, in seventeen rows, those of the vertebral row nearly equal to the other ones, rather larger. Anal entire; ventral plates obscurely keeled. In the stomach of one specimen I found two bird's eggs.

### 3. *LYCODON RUFOZONATUS*.

*Cantor, Ann. and Mag. Nat. Hist.* 1842, p. 483.

One upper anterior ocular, lower one united with loreal. Brown, with numerous crimson (in spirits white) cross bands; belly pearl-coloured, tail beneath spotted with black.

*a.* Adult. Chusan.

## 9. *ISOSCELIS, Günther.*

*Lycodon* with moderate, rounded body and very short tail; head rather depressed, rounded in front; pupil? Rostral shield hardly reaching the surface of head; anterior frontals small, posterior large; vertical three-sided (forming, in the only at present known species, an isosceles triangle); two small nasals, nostril between; one very large, elongate loreal, replacing the anterior ocular; anterior ocular none, posterior two. Scales smooth, rhomboid, in seventeen rows; those of the back equal. Anal entire; subcaudals two-rowed.

### 1. *ISOSCELIS MACULATA*.

Brownish yellow, with a dorsal series of irregular black spots; uniform yellowish beneath.

*a.* Sine patria.

*Description of the specimen.*—Body moderate, rounded; tail short, not distinct, tapering; head rather short, not distinct,

rounded and rather broad in front; eye small, pupil round (?). Rostral shield small, rounded, hardly reaching the surface of head; anterior frontals small, convex; posterior ones large, coming into the orbit; vertical large, forming an isosceles triangle; occipitals elongate, pointed and divergent behind; superciliaries small, two posterior oculars, no anterior one; loreal nearly as long as anterior frontal, forming a part of orbit; two very small nasals, nostril between; seven upper labials, third and fourth coming into the orbit; first pair of lower labials forming a suture behind the terminal labial; only one pair of large chin-shields; three larger temporal shields, several smaller ones behind. Scales smooth, rhomboid, in seventeen rows; anal entire; subcaudals two-rowed. Crown uniform greyish brown, a lighter occipital spot, a larger of black colour behind; spots of the dorsal series, some triangular, some band-like, some quadrangular; on the sides smaller irregular spots; beneath uniform yellowish. Anterior teeth in a continuous series with the following. Length of cleft of mouth  $\frac{1}{3}$ " ; length of tail  $1\frac{1}{3}$ " ; total length  $13\frac{1}{3}$ ".

#### 10. LEPTORHYTAON, Günther.

*Lycodon* with moderate, rounded body and short tail; head depressed, pointed in front; pupil elliptical, erect; rostral shield obliquely protruding, rather pointed above, just reaching the surface of head; anterior frontals rather larger, posterior smaller than in *Lycophidion*; vertical three-sided; one nasal shield, pierced by the nostril; one very large, elongate loreal, pointed behind, and coming into the orbit; one anterior ocular, situated above the loreal, two posterior ones. Scales smooth, rather elongate, rhomboid, in seventeen rows, those of the back equal. Anal bifid; subcaudals two-rowed. India.

*Lycodon*, sp., *Schleg*. *Homalopsis*, sp., *Boie*. *Coluber*, sp., *Merr.*, *Shaw*.

#### 1. LEPTORHYTAON JARA.

Jara-Potoo, *Russell*, *Ind. Serp.* i. t. 14. *Coluber jara*, *Shaw*, *Zool.* iii. p. 525. *Coluber linnæi*, *Merr. Tent.* p. 98. *Homalopsis jara*, *Boie*, *Isis*, 1827, p. 551. *Lycodon jara*, *Schleg. Ess.* ii. p. 110.

Each scale brown with two whitish points, separated by a brown longitudinal streak along the centre; a whitish collar, more conspicuous in younger individuals; beneath uniform whitish.

*a, b.* Adult and young. India. Presented by General Hardwicke.

*c, d.* Adult and half-grown. India.

The longer teeth of both jaws in some distance from the others.

## 11. ODONTOMUS, *Dum. & Bibr.*

Body very slender and compressed; belly angularly bent on the sides; tail elongate; head short, depressed; eyes large, pupil erect. Shields of crown regular: posterior frontals smaller than in other *Lycodontidæ*, vertical elongate; one nasal, one long, narrow loreal, coming into the orbit; one anterior ocular, situated above the loreal; two posterior oculars. Scales smooth, rhomboid, rather short, in thirteen to fifteen rows, those of the back equal; subcaudals two-rowed. Anterior palatine teeth longest, those of the jaws not elongate; anterior ones of the upper jaw compressed. India.

*Odontomus*, *Dum. & Bibr.* vii. p. 450. *Lycodon*, sp., *Boie*, *Schlegel*. *Hurriah*, sp., *Coluber*, sp., *Merr.*, *Daud.*

### 1. ODONTOMUS NYMPHA.

*Russell, Ind. Serp.* ii. t. 36, 37. *Coluber nympha*, *Daud. Rept.* vi. p. 244. *Hurriah nympha*, *Merr. Tent.* p. 93. *Lycodon nympha*, *Boie, Isis*, 1827, p. 522; *Schleg. Ess.* ii. p. 120. *Odontomus nympha*, *Dum. & Bibr.* p. 450.

Scales in thirteen rows. Light brown, with a dorsal series of large round spots.

*a, b.* Adult. India. Presented by Dr. Russell.

## 12. OPHITES, *Wagler.*

*Lycodon* with keeled scales (in seventeen rows); subcaudal plates two-rowed; two nasal shields; either one long loreal, replacing an ante-ocular, or one small loreal and one ante-ocular; two posterior oculars. Habit rather elongate. East Indies.

*Ophites*, *Wagl. Syst. der Amph.* p. 186. *Sphecodes et Ophites*, *Dum. & Bibr.* vii. pp. 394 & 397. *Lycodon*, sp., *Boie, Schleg.* *Coluber*, sp., *Natrix*, sp., *Shaw, Merrem.*

### 1. OPHITES SUBCINCTUS.

*Russell, Ind. Serp.* ii. t. 41. *Coluber platurinus*, *Shaw, Zool.* iii. p. 468. *Lycodon subcinctus*, *Boie, Isis*, 1827, p. 551; *Schleg.*



*Ess.* pl. 4. f. 14, 15. *Natrix platyrhinus*, *Merr. Tent.* p. 134. *Ophites subcinctus*, *Wagl. Syst. Amph.* p. 186; *Dum. & Bibr.* vii. p. 399. *Lycodon platyrhinus*, *Cantor, Catal. of Mal. Rept.* p. 69.

Scales on the hinder part of body slightly keeled; one large loreal, no ante-ocular shield. Brownish, with broad whitish rings round the trunk and tail, those of the tail disappearing with age.

*a.* Adult. Java. From the Leyden Museum.

## 2. OPHITES ALBOFUSCUS.

*Sphecodes albofuscus*, *Dum. & Bibr.* vii. p. 394.

All scales keeled; one short loreal, one ante-ocular shield. Beneath uniform whitish; trunk and tail with alternate brown and white cross bands.

*a.* Adult. Malabar. From M. Parzudaki's Collection, as *Cercaspis carinatus*.

## 13. CERCASPIS, *Wagler*.

*Lycodon* with keeled scales and entire subcaudals; body of moderate length; tail rather short; shields of head regular, two nasals, one loreal, one anterior, two posterior oculars. Scales moderate, in seventeen to nineteen rows, strongly keeled. Ceylon.

*Cercaspis*, *Wagl. Syst. der Amph.* p. 191; *Dum. & Bibr.* vii. p. 389. *Lycodon*, sp., *Schlegel, Ess.* ii. p. 109. *Hurria*, sp., *Kuhl, Beitr. zur Zool. und Vergl. Anat.* p. 95.

### 1. CERCASPIS CARINATA.

*Hurria carinata*, *Kuhl, Beitr. zur Zool.* p. 95; *Boie, Isis*, 1827, p. 517. *Cercaspis carinatus*, *Wagl. Syst. Amph.* p. 191; *Fitz. Syst. Rept.* p. 27; *Dum. & Bibr.* vii. p. 390. *Lycodon carinatus*, *Schleg. Ess.* pl. 4. f. 6, 7.

Black with white cross bands, broader on the sides.

*a.* Adult. Ceylon. From Mr. Cuming's Collection.

*b.* Adult. Ceylon. From Mr. Cuming's Collection.

*c.* Nearly adult. Ceylon. From Mr. Cuming's Collection.

*d.* Nearly adult. Ceylon. From Mr. Cuming's Collection.

*e.* Half-grown. Ceylon. From Mr. Cuming's Collection.

*f.* Adult. Ceylon. Presented by Sir James Macgregor.

14. *CYCLOCORUS*, *Dum. & Bibr.*

Body stout, compressed, especially the posterior part; tail moderate; head broad, with broad muzzle, rounded in front; pupil round; shields of crown regular; rostral rather small, just reaching the surface of head; anterior frontals small, posterior ones large; vertical elongate, with nearly parallel lateral edges; two nasals, nostril situated more in the anterior; one moderate loreal, two anterior and two posterior oculars. Scales smooth, short, rhomboid, rather large, in seventeen rows. Anal and subcaudals entire. Philippine Islands.

*Cyclocorus*, *Dum. & Bibr.* vii. p. 385. *Lycodon*, sp., *Reinhardt*, *Kongel. Danske Videnskab. Afhandl.* 1843, p. 241.

1. *CYCLOCORUS LINEATUS*.

*Lycodon lineatus*, *Reinhardt*, *l. c. t. l. f.* 7-9. *Cyclocorus lineatus*, *Dum. & Bibr.* p. 386.

Brown, with a blackish dorsal band; above and beneath marbled with dark brown.

*a.* Adult. Philippine Islands. From Mr. Cuming's Collection.

*b.* Adult: not good state. Philippine Islands. From Mr. Cuming's Collection.

*c.* Half-grown. Philippine Islands. From Mr. Cuming's Collection.

*d.* Half-grown. Philippine Islands. From Mr. Cuming's Collection.

B. *Venomous Snakes with grooved fangs in front* (p. 1).

Fam. XIII. ELAPSIDÆ.

Head generally quadrangular, with flat crown and moderate or short muzzle. Loreal none; generally one, sometimes two, anterior, two or three (exceptionally four) posterior oculars. Scales smooth, rather round or ovoid, sometimes those of the vertebral line larger, subcaudals entire or two-rowed. Grooved fangs immoveable, sometimes without other smaller smooth ones behind.

Serpens venimeux colubriformes, *Schlegel, Ess. ii. p. 431.*  
Conocerques, *Dum. & Bibr. vii. p. 1187.*

*Synopsis of the Genera.*

1. GLYPHODON. A series of smaller teeth behind the fang. Posterior frontal in contact with two labial shields. Australia.
2. DEMANSIA. A series of smaller teeth behind the fang. Rostral shield moderate; loreal replaced by four shields; subcaudals two-rowed. Australia.
3. HOPLOCEPHALUS. Scales of back equal; subcaudals one-rowed. Australia.
4. PSEUDECHIS. One or two smooth teeth behind the fang; neck not distensible; anal bifid; subcaudals anteriorly entire, posteriorly bifid. New Holland.
5. HAMADRYAS. One or two smooth teeth behind the fang; neck not distensible; three pairs of very large shields round the occipital shields. East Indian Islands.
6. BUNGARUS. Scales of the vertebral line hexagonal; subcaudals entire. East Indies.
7. PSEUDOHAJE. One or two smooth teeth behind the fang. Scales of the vertebral line hexagonal; subcaudals bifid.
8. NAJA. One or two smooth teeth behind the fang; neck distensible; scales of the back equal; rostral shield moderate. East Indies; Africa.
9. CYRTOPHIS. No other tooth behind the fang; rostral very large, covering the whole front of snout. S. Africa.
10. PSEUDONAJA. A series of smooth teeth behind the fang; neck not distensible; rostral large, far produced backwards; loreal replaced by four shields; one anterior, two posterior oculars. New Holland.

11. **BRACHYSOMA.** A series of smooth teeth behind the fang; habit like in *Calamaria*; rostral very large, far produced backwards; loreal replaced by three shields; subcaudals two-rowed. Australia.
12. **ELAPS.** No smooth tooth behind the fang; scales in thirteen to fifteen rows; anal entire. East Indies; Africa; South and Central America.
13. **VERMICALLA.** No smooth teeth behind the fang. Scales in fifteen rows; anal bifid. New Holland.

### 1. GLYPHODON, *Günther.*

Body and tail moderate, rounded; form of head as in *Lycodon*, depressed, with flat crown and broad muzzle, obtuse in front; posterior frontal replacing the loreal, in contact with two labials; one anterior, two posterior oculars; one or two nasals. Scales smooth, short, large, in fifteen or seventeen rows; anal bifid; subcaudals two-rowed. Grooved fang in front; a series of smaller, equal teeth behind. Australia.

This highly interesting genus is intermediate between *Lycodon* and the snakes of this family, agreeing with the former in its physiognomy, with the latter in its dentition. The species appear to be oviparous.

#### 1. GLYPHODON ORNATUS.

*Elaps ornata*, Gray, *Zool. Misc.* p. 55.

Above brown, each scale with yellowish centre; beneath uniform whitish. Scales in fifteen rows.

*a.* Adult female. Australia. Presented by Sir J. Richardson.

*b, c.* Half-grown. N.E. Australia.

*d.* Adult. Sine patria. From the Haslar Collection.

*e.* Adult. Sine patria. From the Haslar Collection.

*f.* Half-grown. W. Australia. Presented by W. Buchanan, Esq.

*g.* Young. N. Australian Expedition. Presented by Dr. J. R. Elsey.

*Description.*—Habit, head and physiognomy as in *Lycodon*; body and tail moderate, rounded, tapering behind; head not very distinct from neck, depressed, with flat crown and broad muzzle, obtuse in front. Rostral shield broad, narrow, rounded behind, not much raised above surface of crown; anterior frontals broad, short; posterior ones much larger, bent down on the sides, replacing the loreal, in contact with second and third labials; vertical five-sided, with such obtuse lateral angles,



as nearly to be three-sided, elongate, and with a very acute angle behind; occipitals moderate, rounded and forked behind; superciliary moderate; two posterior oculars; anterior ocular forming only the upper half of anterior edge of eye, the lower one being formed by the third labial; no loreal, one nasal, pierced by the nostril; seven upper labials, third and fourth coming into the orbit; one larger temporal shield in contact with both oculars, five smaller ones behind scale-like. Scales smooth, short, large, with rounded apex, in fifteen rows; anal bifid; subcaudals two-rowed. Eye small, pupil elliptical, erect. Upper jaw with a grooved fang in front, separated from the other teeth by an interval; an elongate series of six to seven teeth behind; palatine teeth equal in length; anterior teeth of lower jaw longest. Above brown, each scale with a yellow spot in the centre; spots in younger individuals occupying nearly the whole scale, so as to give the appearance of the scales being yellow, brown-edged; crown of head and neck black, separated by a broad white collar, very conspicuous in younger individuals, gradually becoming obsolete; belly uniform yellowish. In the oviduct of one specimen I found eight mature eggs, but without embryo. Length of cleft of mouth  $\frac{5}{12}$ " ; length of tail  $3\frac{1}{4}$ " ; total length 24". Length of egg  $\frac{7}{8}$ " ; breadth of egg  $\frac{1}{3}$ ".

## 2. GLYPHODON TRISTIS.

Above uniform blackish brown, scales of the sides obscurely lighter-edged. Scales in seventeen rows.

a. Adult male. N.E. Coast of Australia. Presented by J. Macgillivray, Esq.

Differs from the other species in the following characters:—Vertical broad, six-sided, with an obtuse angle in front, and a right one behind; outer edges much convergent; two nasals, nostril between; first temporal shield not much larger than hinder ones, in contact with both oculars. Scales smooth, rhomboid, in seventeen rows. Anal bifid. Above uniform black, with a broad, lighter, brownish collar; scales on the sides lighter-edged; beneath uniform dull yellowish; the dark coloration of the sides extending on the outer edge of each ventral plate. Length of cleft of mouth  $\frac{3}{4}$ " ; length of tail  $4\frac{1}{2}$ " ; total length 32".

## 2. DEMANSIA, Gray.

Body and tail moderate or slender, rounded; head high, quadrangular, with rather short, rounded muzzle. Rostral moderate, vertical narrow; no loreal, replaced by the conjunction of posterior temporal (bent down on the sides), of anterior ocular,

of second (triangular) upper labial and posterior nasal; one anterior, two posterior oculars; two nasals, nostril between. Scales smooth, not much imbricate, in fifteen or seventeen rows. Anal bifid; subcaudals two-rowed. Grooved fang in front, a series of smaller equal teeth behind. New Guinea; Australia.

Pseudelaps, *Dum. & Bibr.* vii. p. 1231. Elaps, sp., *Schleg. Ess.* ii. p. 452, &c. Demansia, *Gray, MS. Brit. Mus.* (1836), and *Zool. Misc.* 1842, p. 54.

### 1. DEMANSIA PSAMMOPHIS.

Elaps psammophis, *Schlegel, Ess.* ii. p. 455, and *Abbildg.* t. 46. f. 14. Pseudelaps psammophidius, *Dum. & Bibr.* p. 1234.

Habit very slender; forehead very convex. Above nearly uniform greenish olive; rostral shield without cross streak.

- a. Large specimen. Port Essington. Presented by the Earl of Derby.
- b. Adult. Port Essington. Presented by the Earl of Derby.
- c. Adult: bad state. N. Australia.

### 2. DEMANSIA RETICULATA.

*Gray, Zool. Misc.* p. 54.

Habit moderate; forehead flat. Yellowish: skin between the scales and outer edges of the scales black; a yellowish, dark-edged streak crossing the rostral shield.

- a-c. Adult and young. W. Australia.
- d, e. Adult: not good state. W. Australia.
- f. Adult. W. Australia.
- g. Adult. W. Australia.
- h. Half-grown. Australia.
- i. Half-grown. Australia.
- k. Young. Australia. Presented by Sir J. Macgregor.

### 3. DEMANSIA OLIVACEA.

*Gray, Zool. Misc.* p. 54.

Habit moderate. Olive-green, skin between the scales black; scales of the sides with two white streaks at the base; a dark streak from the back edge of eye to the angle of mouth.

- a. Adult. N.E. Australia. Presented by Dr. Richardson.
- b. Adult. N.E. Australia. Presented by Dr. Richardson.
- c. Adult: bad state. Port Essington.
- d. Half-grown. N. Australia. From Mr. Argent's Collection.

4. DEMANSIA MÜLLERI.

*Elaps mülleri*, *Schleg. Ess.* pl. 16. f. 16, 17; *Müll. Z. Ind. Arch.* t. 9. *Pseudelaps mülleri*, *Dum. & Bibr.* p. 1233.

Olive, with two yellow or rose-coloured streaks along the sides of head and neck.

*Hab.* —?

5. DEMANSIA ANNULATA.

Olive-brown, with numerous black, narrow cross bands.

a. New Holland. Presented by R. W. Willan, Esq.

*Description of the specimen.*—Habit moderate; arrangement of shields as generally in *Demansia*: anterior frontals very narrow; vertical not much elongate; occipitals moderate; anterior ocular with a groove before the eye; one larger temporal shield in contact with lower ocular, five smaller ones behind. Scales in seventeen rows, short, rhomboid; anal bifid. Olive-brown (in spirits), with seventy-two black, narrow cross bands, less conspicuous on the tail; first and second on the neck broadest; crown black, separated from first neck-band by a narrow, reddish-olive cross streak; sides of head whitish; the dark coloration of crown emitting a black streak to the angle of mouth. Length of cleft of mouth  $\frac{3}{8}$ " ; length of tail  $2\frac{1}{4}$ " ; total length  $14\frac{1}{2}$ ".

3. HOPLOCEPHALUS, Cuvier.

Body and tail moderate, sometimes stout; head quadrangular, sometimes rather depressed, not distinct from neck, with flat crown and moderate rounded muzzle. Rostral moderate; no loreal, replaced by the conjunction of posterior frontal, of anterior ocular, of second upper labial and nasal; one anterior, two posterior oculars; one nasal pierced by the nostril. Scales smooth, not much imbricate, in fifteen to twenty-one rows. Anal and subcaudals entire. Grooved fang in front, a series of smaller equal teeth behind. Australia. (Viviparous.)

*Alecto*, *Dum. & Bibr.* (not *Wagler*) vii. p. 1249. *Naja*, sp., *Schleg. Ess.* ii. p. 477, &c.; *Boie, Isis*, 1828, p. 1034. *Elaps*, sp., *Gray, in Grey's Australia*, p. 444. *Hoplocephalus*, *Cuv. Règne Anim.* ii. p. 95, and *Uebersetzung von Voigt*, ii. p. 143.

1. HOPLOCEPHALUS BUNGAROIDES.

*Naja bungaroides*, *Boie, Isis*, 1828, p. 1034. *Naja bungaroides*, *Schlegel, Ess.* ii. p. 477, and *Abbildg.* t. 48. f. 17, 18. *Alecto bungaroides*, *Dum. & Bibr.* p. 1257.

Scales in twenty-one rows. Above black with white spots,



arranged in numerous cross bands; crown of head nearly uniform brown.

*a.* Adult. New Holland. Presented by the Earl of Derby.

## 2. HOPLOCEPHALUS VARIEGATUS.

*Alecto variegata*, *Dum. & Bibr.* p. 1254. *Najæ bungaroidis* specimen, donné par M. Keraudren, *Schleg. Ess.* ii. p. 577.

Scales in twenty-one rows. Above black, irregularly spotted with white; head above with two white cross bands.

*Hab.* New Holland.

## 3. HOPLOCEPHALUS PALLIDICEPS.

Scales in fifteen rows; second and third upper labial shields truncated above. Blackish olive; head lighter; scales of the outer rows with yellowish apex.

*a, b.* Adult. Port Essington. Presented by the Earl of Derby.

*c.* Half-grown. N.E. Australia.

*Description.*—Body rather elongate, rounded; tail rather short, not very distinct from trunk, tapering; head somewhat similar to that of *Glyphodon unicolor*, rather depressed, with broad, flat crown, hardly distinct from neck; muzzle rather short, broad, rounded in front; eye small, pupil subelliptical. Rostral moderate, reaching the surface of head; anterior frontals moderate, broader than long, rounded in front; posterior frontals rather large, five-sided, each with two hinder edges, forming together a right angle; vertical six-sided, longer than broad, with parallel outer edges, an obtuse angle in front and an acute one behind; occipitals moderate, sometimes rather elongate, sometimes obtuse and rounded behind; superciliary moderate; two posterior oculars, one anterior, just reaching the surface of crown. This species differs somewhat from the other *Hoplocephali* in the shields replacing the loreal; the second and third upper labials, being truncated above, do not participate in replacing it. Nasal rather elongate, sharply pointed behind, pierced by the nostril; six upper labials. Scales moderate, rhomboid, in fifteen rows; anal entire. Grooved longer tooth in front, a series of smaller ones behind. Above uniform blackish olive, beneath uniform yellowish; centre of each subcaudal with an obsolete, dark spot; scales of the outer rows with yellowish apex; head uniform light brownish olive.

This species is viviparous: in the oviduct of the specimen, the measurements of which are stated, I found two perfectly developed embryos. Length of cleft of mouth  $1\frac{7}{8}$ " ; length of tail 3" ; total length 24".



4. *HOPLOCEPHALUS GOULDII*.

*Elaps gouldii*, Gray, in *Capt. Grey's Australia*, p. 444. pl. 5. f. 1.

Scales in fifteen rows. Above olive, scales darker-edged; head and neck black, rostral and posterior frontals white; a more or less distinct yellowish spot behind the upper part of eye.

*a.* Adult. W. Australia. From Captain Grey's Expedition.

*b.* Adult. Australia.

5. *HOPLOCEPHALUS CORONATUS*.

*Elaps coronatus*, Schleg. *Ess.* ii. p. 454, and *Abbildg.* t. 46. f. 12, 13; Gray, in *Capt. Grey's Australia*, pl. 5. f. 2. *Alecto coronata*, Dum. & Bibr. p. 1255. pl. 76 b. f. 2.

Scales in fifteen rows; vertical not three times as long as broad. On each side of head a black, beneath white-edged streak, both joined by a broad black collar.

*a, b.* Adult and half-grown. W. Australia.

*c.* Adult: not good state. W. Australia. Presented by G. F. Moore, Esq.

*d, e.* Adult. W. Australia. From Mr. Gilbert's Collection.

*f, g.* Adult and young. W. Australia.

*h-k.* Half-grown. W. Australia.

*l.* Half-grown: head injured. W. Australia. Presented by Sir J. Macgregor.

6. *HOPLOCEPHALUS CORONOIDES*.

Scales in fifteen rows; vertical more than three times as long as broad. On each side of head a black, beneath white-edged streak; no collar.

*a, b.* Adult and half-grown. Van Diemen's Land. Presented by R. Gunn, Esq.

*c.* Adult female. Van Diemen's Land. Presented by Lieut. A. J. Smith, Esq.

*d.* Adult. Van Diemen's Land. Presented by Lieut. A. J. Smith, Esq.

*e.* Adult. Van Diemen's Land.

*f.* Adult. Van Diemen's Land. From the Collection of the Zoological Society.

*g-k.* Half-grown. Van Diemen's Land. Presented by R. Gunn, Esq.

*l, m.* Half-grown. Van Diemen's Land. Presented by R. Gunn, Esq.

*n.* Half-grown. Van Diemen's Land. From the Collection of the Zoological Society.

- m.* Adult. Australia. Presented by the Earl of Derby.
- n.* Adult: greatly injured. Australia. Presented by the Admiralty.
- o.* Half-grown. ? Swan River.
- p.* Adult male. Australia.
- q.* Half-grown. Australia. From the Haslar Collection.

This species is closely allied to *H. coronatus*, and differs only in its much more elongate head and the wanting of the collar; the former character has caused me to establish it as a new species. It appears to be a native of Tasmania, whilst *H. coronatus* comes from the continent of Australia. In the female specimen *c*, 18" long, I found four perfectly developed embryos, each  $4\frac{3}{4}$ " long.

## 7. HOPLOCEPHALUS CURTUS.

*Naja curta*, *Schleg. Ess.* ii. p. 486, and *Abbildg.* t. 48. f. 19, 20 (hinder edge of frontals more rounded than generally).

Scales in nineteen rows (in seventeen rows twice among twenty-five specimens); vertical not twice as long as broad. Head and posterior parts of body uniform blackish.

Var. A. Trunk uniform dark olive.

- a.* Adult. Van Diemen's Land. Presented by R. Gunn, Esq.
- b.* Adult. Kangaroo Island. Presented by the Zool. Soc.
- c, d.* Adult. S. Australia. Presented by Dr. Fleming.
- e, f.* Half-grown and young. S. Australia. Presented by Dr. Fleming.

Var. B. Trunk olive, with broad brownish or black cross bands.

- g-i.* Adult. Van Diemen's Land. Presented by R. Gunn, Esq.
- k, l.* Young. Van Diemen's Land. Presented by R. Gunn, Esq.
- m.* Young. Van Diemen's Land. Presented by R. Gunn, Esq.
- n.* Half-grown. Hobart Town. Presented by J. B. Jukes, Esq.
- o.* Adult. Kangaroo Island. Presented by the Zoological Society.
- p.* Nearly half-grown: not good state. South Australia. Presented by Dr. Fleming.
- q.* Adult. Australia.
- r-t.* Adult and young. Australia.
- u.* Adult. Australia. Presented by the Zoological Society.
- v.* Large specimen. Australia. From the Haslar Collection.
- w.* Nearly half-grown. Australia. Presented by Sir J. Macgregor.
- x.* Nearly half-grown. Australia. From the Collection of the Zoological Society.
- y.* Young: head injured. Australia.
- z.* Young. Australia. From the Haslar Collection.

8. *HOPLOCEPHALUS SUPERBUS*.

*Alecto curta*, *Dum. & Bibr.* (not *Schlegel*) p. 1252, *except* p. 1254, *line 7*: à 17 rangées longitudinales.

Scales in fifteen rows; vertical shield narrow, more than twice as long as broad. Above brown or brownish olive; belly anteriorly olive, becoming blackish towards the tip of tail.

- a. Large specimen. Voyage of the *Erebus* and *Terror*. Captain Sir James Ross's Expedition.
- b. Adult. Voyage of the *Erebus* and *Terror*. Captain Sir James Ross's Expedition.
- c. Adult. Voyage of the *Erebus* and *Terror*. Captain Sir James Ross's Expedition.
- d. Adult. Van Diemen's Land. Presented by Lieut. A. J. Smith.
- e, f. Adult and half-grown. Van Diemen's Land. Presented by R. Gunn, Esq.
- g. Adult. New Holland. From M. Parzudaki's Collection as *Alecto curta*.
- h-k. Adult female and half-grown. South Australia. Presented by Dr. Fleming.
- l, m. Nearly half-grown. Swan River. From the Haslar Collection.
- n. Nearly half-grown. Swan River.
- o. Adult. Australia.
- p. Young. Australia.

*Description*.—Body moderate, rounded, rather depressed; tail rather short, thin, distinct from trunk, tapering; head scarcely distinct from neck, quadrangular, with flat crown and moderate, rounded muzzle; superciliaries prominent, a groove before the eye. All the shields of head proportionate; rostral just reaching the surface of crown; vertical more than twice as long as broad, with nearly parallel outer edges and nearly a right angle behind; occipitals rounded behind, not much forked. Anterior ocular raised above the surface of crown, grooved. Scales always in fifteen rows. Above uniform olive-brown, one or two outer rows of scales with a large yellowish spot in the centre; beneath olive, towards behind blackish, plates more or less blackish-edged. A series of three or four smaller, smooth teeth behind the fang. In the eggs I could easily find the head of the foetus. Length of cleft of mouth  $\frac{9}{8}$ " ; length of tail  $6\frac{1}{4}$ " ; total length 43" ; length of egg  $\frac{3}{4}$ " ; breadth of egg  $\frac{3}{8}$ ".

4. *PSEUDECHIS, Wagler*.

Body rather elongate and rounded; tail moderate, not distinct from trunk, tapering; head not distinct from neck, moderate, quadrangular, with moderate rounded muzzle; shields of crown



moderate; two nasals, nostril between; no loreal; one anterior, two posterior oculars; scales smooth, imbricate, in seventeen rows; anal bifid; first subcaudals entire, hinder ones two-rowed (exceptionally all entire). Grooved fang in front; some smaller, not grooved ones behind. Australia.

*Trimeresurus*, sp. (*Lacép.*) *Guérin, Icon. Règne Anim.*; *Dum. & Bibr.* vii. p. 1247. *Naja*, sp., *Schleg. Ess.* ii. p. 479; *Gray, Zool. Misc.* p. 55. *Pseudechis*, *Wagl. Syst. Amph.* p. 171. *Acanthophis*, sp., *Lesson, Voy. Duperr. Zool.* *Hurria*, sp., *Merr. Tent.* p. 92. *Coluber*, sp., *Shaw, Zool.* iii. p. 423.

# 1. PSEUDECHIS PORPHYRIACUS.

*Coluber porphyriacus*, *Shaw, Zool. of N. Holl.* p. 27. pl. 10, and *Shaw, Gen. Zool.* iii. p. 423. pl. 110. *Hurria porphyreus*, *Merr. Tent.* p. 92. *Acanthophis tortor*, *Less. Voy. du Duperrey, Zool.* pl. 6. *Pseudechis porphyriacus*, *Wagl. Syst. Amph.* p. 171. *Trimeresurus porphyriacus*, *Guérin, Icon. Rept.* pl. 24; *Dum. & Bibr.* p. 1247. *Naja porphyriaca*, *Schleg. Ess.* pl. 17. f. 10, 11. *Naja australis*, *Gray, Zool. Misc.* p. 55.

Black or brownish olive above, belly and sides crimson; ventral plates blackish-edged.

*a-c.* Adult and half-grown. New Holland. Old Collection.

*d.* Adult: not good state. N.E. Australia.—Original specimen of Dr. Gray's *N. australis*.

*e.* Adult. Australia. Presented by the College of Surgeons.

*f.* Adult. Australia. Presented by J. B. Jukes, Esq.

*g.* Half-grown. Australia.

Var. All subcaudals entire.

*h.* Adult: not good state. Australia. From the Haslar Collection.

# 5. HAMADRYAS, Cantor.

Body elongate and rather rounded; tail moderate, not distinct from trunk; head not distinct from neck, moderate, quadrangular, with moderate rounded muzzle; occipital shields large, surrounded by three pairs of very large shields; two nasals, nostril between; no loreal; one (exceptionally two) anterior, three posterior oculars; scales smooth, much imbricate, in fifteen rows; those of the vertebral line larger, subhexagonal; anal entire; first subcaudals entire, hinder ones two-rowed (exceptionally all bifid). Grooved fang in front; some smaller ones, not grooved, behind. East Indian Islands.

*Trimeresurus*, sp., *Dum. & Bibr.* p. 1245. *Hamadryas*, *Cantor, Catal.* p. 116. *Naja*, sp., *Schleg. Ess.* ii. pp. 476, 485.



I. HAMADRYAS ELAPS.

*Less. Voy. de la Coquille, Zool. Rept.* pl. 5. *Naja elaps*, *Schleg. Ess.* ii. p. 485. *Hamadryas ophiophagus*, *Cantor, l. c.* *Trimersurus ophiophagus*, *Dum. & Bibr.* p. 1245.

Scales in fifteen rows.

A. Above uniform, more or less dark olive, beneath paler.

a. Philippine Islands. From Mr. Cuming's Collection.—All subcaudals bifid. Olive above.

b. Borneo. Presented by Captain Sir Edward Belcher.—Subcaudals entire and bifid. Black above.

B. Var. *vittata*. With narrow white cross bands; head with four broader cross bands = *Naja vittata*, *W. Elliott, Madras Journ. Lit. & Sc.* xi. pl. 1. *Naja bungarus*, *Schleg. Ess.* ii. p. 476.

c. Large specimen. Stuffed. Madras. Presented by W. Elliott, as *Naja vittata*.

d. Young. *Sine patria*.—The coloration of this specimen perfectly agrees with Professor Schlegel's description and figure; but it exhibits the scales in not more than fifteen longitudinal rows; no doubt the number nineteen in the aforesaid description is wrong.

6. BUNGARUS, *Daudin*.

Body rather elongate and compressed; tail short; head depressed, broad, distinct from neck, with short rounded muzzle; two nasals, nostril between; no loreal; one anterior, three posterior oculars. Scales smooth, not much imbricate, in thirteen to fifteen rows, those of the vertebral line large and hexagonal. Anal and subcaudals entire. Grooved fang in front; some smaller ones behind, not grooved. East Indies.

*Bungarus*, *Daud. Rept.* v. p. 263, viii. p. 385; *Cuv. Règne Anim.*; *Merr. Tent.* p. 137; *Schleg. Ess.* ii. p. 456; *Cantor, Catal.* p. 112; *Dum. & Bibr.* vii. p. 1265. *Megærophis*, *Gray, Ann. & Mag.* 1849, p. 247. *Aspidoclonion*, *Wagl. Syst. Amph.* p. 193. *Boa*, sp., *Shaw, Zool.* iii. p. 353; *Hermann, Observ. Zool.* i. p. 272. *Pseudoboa*, sp., *Schneid. Hist. Amph.* p. 284. *Coluber*, sp., *Linné*.

1. BUNGARUS LINEATUS.

*Russell, Ind. Serp.* i. 1 (ii. 31?). *Boa lineata*, *Shaw, Zool.* iii. p. 356. pl. 2. *Pseudoboa cœrulea*, *Schneid. Hist. Amph.* p. 284. *Bungarus cœruleus*, *Daud. Rept.* v. p. 270; *Merr. Tent.* p. 137; *Dum. & Bibr.* p. 1273. *Aspidoclonion cœruleum*, *Wagl. Syst.* p. 192. *Bungarus candidus*, *Cantor, Catal.* p. 113.

Brownish, with a strong cast of purple; back sometimes with small longitudinal and transverse white streaks, sometimes with white cross bands.

Var. A. Back with small longitudinal and transverse streaks.

- a. Adult. India. Presented by General Hardwicke.
- b. Adult: tail injured. India. Purchased.
- c. Half-grown. India. Presented by Dr. Russell.
- d. Half-grown: rather discoloured. India. Presented by General Hardwicke.
- e. Half-grown: discoloured. India. Presented by W. Masters, Esq.
- f. Half-grown. Benares. Presented by Dr. Sayer.
- g. Adult: not good state. Madras. Presented by J. E. J. Boileau, Esq.
- h. Adult. India.
- i. Adult: bleached. India.
- k. Half-grown. India. Presented by the College of Surgeons.

Var. B. = *B. arcuatus*, *Dum. & Bibr.* p. 1272.

Pairs of narrow white cross bands on the back.

- l. Adult. India.
- m. Adult. India. Old Collection.

Var. C. Uniform, without white streaks or bands.

- n. Half-grown. India. Presented by Dr. Russell.
- o. Half-grown: not good state. India. Presented by General Hardwicke.
- p. Half-grown. India. Presented by General Hardwicke.
- q. Head of an adult. India. Presented by General Hardwicke.

## 2. BUNGARUS FASCIATUS.

*Seba*, ii. 58. 2; *Scheuchz.* t. 655. f. 8; *Russell*, i. pl. 3. *Pseudoboa fasciata*, *Schneid. Hist. Amph.* p. 283. *Boa fasciata*, *Shaw, Zool.* iii. p. 353. pl. 99. *Bungarus annularis*, *Daud. Rept.* v. p. 265; *Merr. Tent.* p. 137; *Schleg. Ess.* pl. 16. f. 21, and *Abbildg.* t. 48. f. 1-5; *Dum. & Bibr.* p. 1269. *Boa latotecta*, *Hermann, Obs. Zool.* i. p. 272. *Aspidoclonion annulare*, *Wagl. Syst.* p. 192. *Bungarus fasciatus*, *Cantor, Catal.* p. 113.

Body encircled by large black rings.

Var. A. On each side of neck a large white spot, emitting a white streak on the crown, both streaks confluent on the crown, and forming an arrow-shaped mark.

- a. Adult. China.
- b. Adult. China.

- c. Adult. Bengal. Presented by General Hardwicke.
- d. Adult. India. Old Collection.
- e. Adult: head and tail. India. Old Collection.
- f, g. Adult. India. Colonel Cobbe's Collection.
- h. Trunk of an adult. India. Presented by Captain Stafford.
- i. Half-grown. India. Presented by W. Masters, Esq.
- k. Adult. India.

Var. B. White marks of head and neck visible only in young individuals; in adult ones, head, neck, and foremost part of trunk uniform black: it does not appear to grow to the same size as the preceding variety.

- l. Adult. Ceylon. From Mr. Cuming's Collection.
- m. Adult: not good state. Ceylon. Presented by R. Templeton, Esq.
- n. Half-grown. Ceylon. From Mr. Cuming's Collection.
- o. Nearly half-grown. Ceylon. From Mr. Cuming's Collection.
- p. Nearly half-grown. Ceylon. Presented by Capt. Gascoigne.
- q. Young. Ceylon. Presented by R. Templeton, Esq.
- r. Young. Ceylon. From Mr. Cuming's Collection.
- s. Young. Ceylon. From Mr. Cuming's Collection.

### 3. BUNGARUS SEMIFASCIATUS.

*Coluber candidus*, Linn. *Mus. Ad. Fried.* t. 7. f. 1. *Bungarus semifasciatus*, Kuhl, *Isis*, 1827, p. 552; *Schleg. Ess.* pl. 16. f. 18-20, and *Abbildg.* t. 18. f. 6-10; *Dum. & Bibr.* p. 1271. *Aspidoclonion semifasciatum*, *Wagl. Syst.* p. 193, and *Icon.* t. 2.

Back with large dark brown cross bands; belly uniform whitish.

- a. Adult. China.
- b. Adult. East Indies.
- c. Adult. East Indies. From the Haslar Collection.

### 4. BUNGARUS FLAVICEPS.

*Reinhardt, Det Kongel. Danske Vidensk. Afhandl.* x. t. 3. f. 5; *Cantor, Catal.* p. 112; *Dum. & Bibr.* p. 1274. *Megærophis formosus*, Gray, *Ann. & Mag. N. H.* 1849, p. 247.

Head and vertebral line red (in spirits yellow).

- a. 5 feet long. Borneo. From Mr. Lowe's Collection.
- b. 5½ feet long\*. Borneo. From Mr. Lowe's Collection.
- c. 5 feet long. Borneo. Presented by Sir James Brooke.
- d. Half-grown. Borneo. Presented by Sir James Brooke.
- e. 5 feet long. Sumatra. From the Collection of the Zoological Society.

\* Cfr. M. Duméril's *sic*, p. 1275.



7. PSEUDOHAJE, *Günther*.

Body rather elongate, with rounded sides; tail moderate; head rather small, high, quadrangular, with spheroid crown and short, rounded muzzle. Shields of crown moderate, superciliary large; loreal replaced by ocular and posterior nasal; two nasals, nostril between; one anterior, three posterior oculars; third labial forming nearly the lower half of front edge of orbit. Scales large, smooth, imbricate, in thirteen rows, those of the vertebral line much larger, hexagonal. Anterior ribs shortest. Anal entire; subcaudals two-rowed. Grooved fang in front; two smaller, not grooved ones behind.

## 1. PSEUDOHAJE NIGRA.

Uniform black, paler beneath.

*a.* Adult. Sine patria. Presented by the Earl of Derby.

*Description of the specimen.*—Body rather elongate, rounded; tail moderate, not distinct from trunk, tapering, ending in a long, conical, very acute spine; head rather small, not very distinct from neck, with spheroid crown and short, rounded muzzle. Shields of crown regular, moderate; rostral reaching the surface of snout; vertical five-sided, longer than broad, with rather convergent outer edges, and a very obtuse angle behind; occipitals rounded behind, and forming together a right angle; superciliary large, prominent above the eye; one anterior ocular, not reaching the surface of crown; three posterior oculars; loreal replaced by ocular and posterior nasal; nostril between two nasal shields; seven upper labials: first and second small, suppressed by the nasals; third and fourth coming into the orbit; sixth as in *Naja haje*, very large, in contact with both lower oculars; one temporal shield in contact with both upper oculars, two or three smaller ones behind. Scales smooth, large, very regularly disposed, on the neck in fifteen, on the anterior part of body in thirteen rows; those of the vertebral line much larger, hexagonal, as in *Bungarus*; anal entire; subcaudals bifid. Grooved longer tooth in front, two small ones behind, not grooved; mandibular teeth small, those in front rather longer. Uniform black, paler beneath. Length of cleft of mouth  $1\frac{7}{2}$ " ; length of tail  $1' 7''$ ; total length  $7' 7''$ .

8. NAJA, *Laurenti*.

Body and tail moderate; belly flat; head high, quadrangular, not very distinct from neck, with rather short, rounded muzzle. Rostral moderate, rounded, sometimes produced backwards and pointed; frontals moderate, nearly equal; vertical moderate;



loreal replaced by anterior ocular, third labial and posterior nasal; two nasals, nostril between; one anterior, three (exceptionally two or four) posterior oculars, third labial forming the lower half of front edge of orbit. Scales smooth, much imbricate; number of dorsal longitudinal rows subject to great variation. Anterior ribs longer, neck distensible. Anal entire; subcaudals two-rowed. Grooved fang in front; one or two smaller ones, not grooved, behind. Africa; East Indies.

*Naja, Laurenti, Syn.* p. 197; *Merr. Tent.* p. 147; *Gray, Ind. Zool.*; *Dum. & Bibr.* vii. p. 1275; *Fischer, Abhdlg. Gebiete Naturw. Hamb.* 1856, p. 22. *Naja*, sp., *Boie, Isis*, 1827, p. 537; *Schleg. Ess.* ii. p. 460. *Aspis*, *Uraeus*, *Wagl. Syst. Amph.* p. 173. *Vipera*, sp., *Latr. Rept.* iv. p. 10; *Daud.* vi. p. 62. *Coluber*, sp., *vet. auct.*

# 1. NAJA TRIPUDIANS.

*Scheuchz.* t. 749. f. 9; *Seba*, i. 44. 1, ii. 85. 1. 89. 1-4. 90. 1. 94. 1-4; *Kämpf. Amæn.* p. 565. t. . *Coluber naja*, *L. Mus. Ad. Fried.* i. t. 25. f. 1, and *Syst. Nat.* i. p. 382; *Lacép.* ii. pp. 102, 104; *Laurenti, Syn.* p. 91; *Shaw, Zool.* iii. p. 409; *Russell, Ind. Serp.* i. t. 5, 6. ii. t. 1. *Vipera naja*, *Latr. Rept.* iv. p. 10; *Daud.* vi. p. 62. *Naja tripudians*, *Merr. Tent.* p. 147; *Gray, Ind. Zool.*; *Boie, Isis*, 1827, p. 557; *Schleg. Ess.* ii. p. 466; *Dum. & Bibr.* p. 1293. *Aspis naja*, *Wagl. Amph.* p. 173.

Sixth upper labial small, forming a suture with a very large temporal; generally with a spectacles-like mark on the neck. East Indies.

Var. A. Brownish olive, with very conspicuous, white, black-edged spectacles on the neck. Scales in the middle of trunk generally in more than twenty-one rows, sometimes in nineteen.

a. Adult. Madras. Presented by J. C. Jerdon, Esq.

b. Young. Madras. Presented by J. E. J. Boileau, Esq.

c. Young. Ceylon. From Mr. Cuming's Collection.

d. Adult: not good state. China.

e. Adult: not good state. Bengal. Presented by W. C. Masters, Esq.

f. Half-grown: not good state. Bengal.

g. Young. Bengal.

h. Adult: tail injured. India. Old Collection.

i-l. Adult. India. Colonel Cobbe's Sale.

m. Adult: discoloured. India. Old Collection.

n. Half-grown: discoloured. India. Old Collection.

o. Half-grown. India. Presented by W. C. Masters, Esq.

p. Half-grown. India. Presented by General Hardwicke.

- q.* Half-grown. India. Presented by W. C. Masters, Esq.  
*r.* Young. India.  
*s.* Adult. India. From Mr. Argent's Collection.  
*t.* Adult. India.  
*u.* Adult. India. From M. Parzudaki's Collection.  
*v.* Half-grown. India. Presented by the Zoological Society.  
*w.* Half-grown: not good state. India. From the Haslar Collection.  
*x.* Half-grown. India.  
*y, z.* Young. India.  
*a, β.* Young. India. Old Collection.

Var. B. Brownish olive, with irregular black cross bands, and very conspicuous, white, black-edged spectacles. Scales in the middle of trunk, generally in more than twenty-one rows, sometimes in nineteen.

*Naja atra*, Cantor, *Ann. and Mag. N. H.* ix. p. 27.

- γ.* Adult. India. Colonel Cobbe's Sale.  
*δ.* Adult. India.  
*ε.* Young. India.  
*ζ.* Young: bad state. Ceylon. Presented by R. Templeton, Esq.  
*η.* Adult. India. Presented by the Zoological Society.  
*θ.* Half-grown. India. Presented by the Zoological Society.

Var. C. Dark olive, with very conspicuous, white, black-edged spectacles; belly marbled with brown. Scales in the middle of trunk, in more than twenty-one rows.

- ι.* Adult. Kandy. Presented by Captain Gascoigne.  
*κ.* Half-grown. Kandy. Presented by Captain Gascoigne.  
*λ, μ.* Adult. Ceylon. From Colonel Cobbe's Collection.  
*ν.* Adult. Bengal. Presented by W. C. Masters, Esq.  
*ξ.* Adult: bad state. Canton. From the Haslar Collection.

Var. D. Uniform brownish olive, without spectacles. Scales in the middle of body, in twenty-one or more rows.

- ο.* Adult. Java. From Mr. Brandt's Collection.  
*π.* Adult. India. Presented by J. S. Bowerbank, Esq.  
*ρ.* Large specimen without fangs. Sine patria. Presented by Mrs. Mauger.

Var. E. Black, with white spectacles. Scales generally in the middle of body, in less than twenty-one rows, sometimes in twenty-one and more.

- σ.* Young. China. Presented by W. Linsay, Esq.  
*τ.* Adult. India.

- v. Half-grown : bad state. India. Presented by General Hardwicke.
- φ. Half-grown : bad state. India. From M. Parzudaki's Collection.
- χ. Young. India.

Var. F. *Naja sputatrix*, (*Reinw.*) *Boie, Isis*, 1827, p. 556; *Wagl. Syst. Amph.* p. 173; *Gray, Ind. Zool.* pl. . *N. tripudians*, var. *nigra*.

Uniform black, without spectacles. Scales in the middle of body, generally in nineteen rows, sometimes in seventeen, sometimes in more.

- ψ. Adult female. Borneo. From Mr. Frank's Collection as *N. unicolor*; exhibits only seventeen longitudinal rows of scales and two posterior oculars.
- ω. Adult. Borneo. Presented by Sir J. Brooke.
- aa. Adult. Borneo. Presented by Sir J. Brooke.
- bb. Adult : injured. Borneo. Presented by Sir J. Brooke.
- cc. Adult. Borneo? Presented by Captain Sir E. Belcher.
- dd. Young. Sumatra. From the Leyden Museum. A hardly visible whitish mark on the neck.
- ee. Adult : not good state. Philippines. From Mr. Cuming's Collection.
- ff. Half-grown. Asia. From Mr. Argent's Collection.

By the specimens of our Collection are shown :—

1. The number of longitudinal rows of scales is subject to great variation on the anterior parts of body, and is more constant towards the tail : all the varieties exhibit there 13 or 15 rows.

2. The varieties with spectacles appear to come from the East Indian Continent and Ceylon, those without marks from the Islands.

3. In the latter the ribs are shorter, the neck less distensible, and consequently the number of scales smaller.

## 2. NAJA HAJE.

*Seba*, ii. 84. 2. *Coluber haje*, *Linn. Mus. Ad. Fried.* ii. p. 46, and *Syst. Nat.* i. p. 387; *Hasselqu. Reise*, p. 366. *Vipera haje*, *Daud. Rept.* vi. p. 41. *Naja haje*, *Merr. Tent.* p. 148; *Cuv. Règne Anim.*; *Boie, Isis*, 1827, p. 556; *Schleg. Ess.* t. 17. f. 4, 5; *Dum. & Bibr.* p. 1298; *Smith, Ill. of S. Afr. Rept.* t. 18–21; *Geoffr. Descr. de l'Eg.* t. 7. f. 1–3; *Suppl.* t. 3; *A. Dum. Rev. et Mag. Zool.* 1856, p. 554. *Uræus haje*, *Wagl. Syst.* p. 173.

Sixth upper labial united with temporal, and forming a very large shield in contact with oculars; generally without marks on the neck.



Var. A. Yellowish brown, uniform or with darker blotches; no mark on the neck; scales in twenty-one and more longitudinal rows; sometimes a fourth inferior ocular.

- a. Adult. Egypt. Presented by J. Burton, Esq.
- b. Adult. Egypt. Presented by J. Wilkinson, Esq.
- c. Adult. Egypt. Presented by J. Wilkinson, Esq.
- d. Adult. Egypt. Presented by J. Wilkinson, Esq.
- e. Adult. Egypt. Presented by J. Wilkinson, Esq.
- f. Adult. Egypt. From the Haslar Collection.
- g. Large specimen, without fangs. N. Africa.
- h. Adult. N. Africa.

Var. B. Uniform black; young with broad yellowish bands on the anterior part of body. Scales in the middle of body in seventeen or nineteen rows.—*Hallowell, Proc. Ac. Nat. Sc. Phil.* 1857, p. 61.

- i. Adult. Coast of Guinea.
- k. Half-grown. W. Africa. From Mr. Rich's Collection.
- l. Young. Gambia. Presented by J. Mitchell, Esq.

Var. C. Black, with a white spectacles-like mark on the neck; anterior part of belly yellowish, with broad black cross bands; scales of the back very irregularly disposed, so as to exhibit seventeen, eighteen or twenty-one longitudinal rows, towards the tail only thirteen; sixth upper labial as in preceding varieties.

- m. Adult. Niger Expedition.

The specimens of our Collection appear to show :—

1. The number of the longitudinal rows of scales, being subject to variations on the anterior parts of body, is more constant towards the tail: all the varieties exhibit there 13 or 15 rows.

2. The black varieties come from the western parts of Africa (and according to Dr. Smith's statement from South Africa).

3. The spectacles are not to be considered as a peculiarity of the East Indian species.

4. In the African species as well as in the East Indian one, the black varieties exhibit shorter anterior ribs, a less distensible neck, and consequently a smaller number of scales.

## 9. CYRTOPHIS, *Sundevall*.

Body and tail moderate; belly flat; head high, quadrangular, not very distinct from neck, with short, rounded muzzle. Rostral large, covering the whole front of snout, much produced behind, extending far between the anterior frontals, pointed behind; anterior frontals much larger than posterior ones; vertical mode-



rate ; no loreal ; two nasals, posterior one pierced by the nostril ; one anterior, three posterior oculars. Scales smooth, very imbricate, in nineteen rows on the back, in twenty-one or twenty-three on the neck. Anal entire ; subcaudals two-rowed. Grooved fang in front, without any smaller teeth behind. South Africa.

*Smith, Ill. of S. Afr. App. p. 22.*

# 1. CYRTOPHIS SCUTATUS.

*Smith, Ill. of S. Afr. App. p. 22.*

Olive (in spirits) ; body and tail encircled with broad black, complete rings, sometimes obsolete ; a large spot, pointed in front, on the neck, and a black cross band between the eyes, always conspicuous.

*a, b. Adult. South Africa. From Mr. Brandt's Collection.*

## 10. PSEUDONAJA, Günther.

Body and tail moderate ; belly flat ; head high, quadrangular, not very distinct from neck, with moderate, rounded muzzle. Rostral large, much produced backwards ; anterior frontals smaller than posterior ones ; vertical moderate ; no loreal, replaced by the conjunction of posterior frontal, anterior ocular, second upper labial and posterior nasal ; one anterior, two posterior oculars ; two nasals, nostril between. Scales smooth, not much imbricate, in seventeen rows on the back. Anal bifid ; subcaudals two-rowed ; anterior ribs not longer than following ; rather more slender. Grooved fang in front, a series of smaller equal teeth behind. Australia\*.

### 1. PSEUDONAJA NUCHALIS.

Front side of the vertical shield shorter than the longest of the other edges ; anterior frontals with a convex edge behind, and a rather obtuse angle in front. Brownish olive, with very broad dark cross bands, darkest on the neck ; cross bands sometimes obsolete, except that on the neck.

*a. Adult. N.W. Australia. Presented by Sir J. Richardson.*

*b. Young. N.W. Australia. Presented by Sir J. Richardson.*

*c. Adult: skin in spirits. Port Essington. Presented by the Earl of Derby.*

*Description.*—Body and tail moderate, belly flat ; head moderate, quadrangular, hardly distinct from neck, not depressed, with

\* To this genus perhaps belongs *Pseudoëlaps superciliaris*, Fischer, Abhdlg. Geb. Naturw. Hamb. 1856. The figure does not correspond to the description.

flat crown and obtuse, rounded muzzle of moderate length; eye rather small. Rostral shield much longer than broad, five-sided, much produced backwards, so as nearly to cover the entire front of muzzle, extending between the anterior frontals, with a right angle behind. Anterior frontals rather small, with four sides, the hinder of which is convex; posterior frontals moderate, bent on the sides; vertical moderate, five-sided, with convergent outer edges and a right angle behind; occipitals rounded behind, forked; superciliaries moderate, prominent above the eye; two posterior oculars; one anterior (in one specimen two), deeply grooved before the eye, raised above the surface of crown, but not reaching the vertical; two nasals (nostril between), anterior one largest, bent on the front of snout; six upper labials, third and fourth forming the lower edge of orbit, sixth largest; one larger, rhomboid, temporal shield in contact with lower post-orbital, some others behind scale-like. Six lower labials, and a very small scale-like shield behind; first pair of lower labials very long, forming a long suture behind the medial one; the second small, narrow, only one-fourth of the third; the fourth pair very large, in one specimen six-sided, in contact with the fifth and with two chin-scales behind. Scales rather elongate, rhomboid, smooth, in seventeen rows, on the neck in nineteen or twenty-one rows; anal bifid; all subcaudals two-rowed. Upper jaw with one fang in front, separated from the following by an interval; an elongate series of five to six teeth behind, which are not grooved; palatine teeth equal; anterior teeth of lower jaw longest. Brownish olive or blackish olive; back of trunk and tail with ten to twelve very broad brown or black cross bands, the first on the neck being darkest; adult specimens exhibit the bands more or less obsolete, so as to become nearly uniform, the neck always being blackish brown, or ornamented with an angular brown spot; belly uniform yellowish, in young individuals black-spotted. Length of cleft of mouth 1"; length of tail 1'; total length 5' 4".

### 11. BRACHYSOMA, *Fitzinger*.

Body cylindric, rather elongate, as in *Calamaria*; tail rather distinct from trunk, short, tapering, ending in an obtuse, conical scale; head not distinct from neck, moderate, rather depressed, rounded; rostral shield very large, protruding, rounded, extending between the anterior frontals; frontals nearly equal in size; vertical very broad, reaching the anterior ocular; no loreal, replaced by the conjunction of nasal, posterior frontal and ocular; one nasal, pierced by the small rostral; one anterior, two posterior oculars. Scales smooth, not much imbricate, in not much oblique

rows, short, with rather rounded apex, in fifteen rows; anal bifid; subcaudals two-rowed. Grooved tooth in front, a series of smooth teeth behind. Australia.

Furina, *Dum. & Bibr.* vii. p. 1236. *Brachysoma*, *Fitzinger, Syst. Rept.* p. 25. *Calamaria*, sp., *Schleg. Ess.* ii. p. 35.

1. BRACHYSOMA DIADEMA.

*Calamaria diadema*, *Schleg. l. c.* *Brachysoma diadema*, *Fitz. l. c.* Furina diadema, *Dum. & Bibr.* p. 1239.

Pale brown above; head and neck black above, with a white collar.

*a.* Adult. W. Australia.—*b.* Adult. W. Australia.

2. BRACHYSOMA BIMACULATUM.

Furina bimaculata, *Dum. & Bibr.* p. 1240.

Pale brown above; head and neck black above, with white muzzle and a white collar.—*Dum. & Bibr.* Tasmania.

3. BRACHYSOMA CALONOTOS.

Furina calonotos, *Dum. & Bibr.* p. 1241. pl. 75 bis.

Pale brown above; back black, punctated with white; head and neck black, with a white cross band before the eyes and a white collar. Tasmania.

12. ELAPS, *Schneider.*

Body elongate, sometimes very slender, cylindric; tail short; head rather depressed, not distinct from neck, with short rounded muzzle; two nasals, nostril between (in *E. hygiæ* one nasal); no loreal, replaced by posterior nasal and anterior ocular; one anterior, two (in *E. hygiæ* one) posterior oculars. Scales smooth, not much imbricate, in the American species generally in fifteen, in the East Indian ones in thirteen rows; those of the vertebral line not larger; anal entire; subcaudals two-rowed. Grooved fang in front, no other tooth behind. East Indies; South and Central America; Africa.

Elaps, *Dum. & Bibr.* vii. p. 1191; *Cantor, Catal.* p. 109; *Schlegel, Ess.* ii. p. 435; *Gray, Zool. Misc.*; *Wagl. Syst. Amph.* p. 193; *Cuvier, Règne Animal.* *Calliophis*, *Gray, Ind. Zool.* *Vipera*, sp., *Harlan, Med. Phys. Res.* 1835, p. 127; *Latr. Rept.* iv. p. 29; *Daud. Rept.* vi. p. 13. *Aspis*, sp., *Cerastes*, sp., *Laurenti, Syn. Rept.* *Elaps*, sp., *Schneid. Hist. Amph.* ii. p. 289. *Coluber*, sp., *auct. prior.*



## 1. ELAPS INTESTINALIS.

*Seba*, ii. 77. 6; *Russ. Ind. Serp.* ii. pl. 19. *Aspis intestinalis*, *Laur. Syn. Amph.* p. 106. *Coluber intestinalis*, *Gm. Syst. Nat.* p. 1085. *Elaps furcatus*, *Schneid. Hist. Amph.* p. 303; *Schleg. Ess.* pl. 16. f. 12, 13, and *Abbildg.* t. 46. f. 1-8; *Cant. Proc. Zool. Soc.* 1839, p. 34, and *Catal.* p. 107; *Dum. & Bibr.* p. 1228. *Vipera furcata*, *Daud. Rept.* vi. p. 22.

Brownish olive, with three yellowish longitudinal bands, the medial one forked on the head; belly with large black cross bands.

- a. Adult. Penang. Presented by General Hardwicke.
- b. Young: injured. Hong Kong. Presented by J. C. Bowring, Esq.
- c. Adult. Java. From M. Parzudaki's Collection.
- d. Adult. Asia. Presented by the Zoological Society.
- e, f. Adult and half-grown. East Indies. Presented by the Hon. East India Company.

Var. The black cross bands of the belly extending round the whole body, breaking up the vertebral band, interrupted by two brownish-olive (ground colour) longitudinal bands.

- f. Adult. Philippine Islands. From Mr. Cuming's Collection.

## 2. ELAPS GRACILIS.

*Calliophis gracilis*, *Gray, Ind. Zool.* pl. f. 1-3 (dentition incorrect); *Schleg. Ess.* ii. p. 451, *nota*. *Elaps nigro-maculatus*, *Cantor, Catal.* pl. 40. f. 7.

Body cylindric, very slender. Above olive, with nine, five, or three narrow black longitudinal lines: vertebral line very distinct; one on each side of back not very distinct; three on each side of belly, sometimes confluent. On each side of the vertebral line pairs of large black spots. Belly yellowish, with broad black cross bands.

- a. Adult. India. From the Haslar Collection.
- b. Adult. India. Presented by the Hon. East India Company.

## 3. ELAPS BIVIRGATUS.

*Elaps bivirgatus*, (*Boie*) *Schlegel, Ess.* pl. 16. f. 10, 11, and *Abbildg.* t. 47; *Dum. & Bibr.* p. 1230. *Elaps flaviceps*, *Cantor, Catal.* p. 109. *Doliophis flaviceps*, *Girard, Proc. Ac. Nat. Sc. Philad.* 1857, p. 182.

Body cylindric, excessively slender. Black above, with a



whitish longitudinal band on each side. Head and belly uniform red (in spirits yellowish).

*a.* Adult. Penang. Presented by General Hardwicke.

*b.* Adult. India. From Mr. Warwick's Collection.

*c.* Adult. Java.

*d, e.* Adult. East Indies. Presented by the Hon. East India Company.

#### 4. ELAPS UNIVIRGATUS.

Crown of head and neck black, with a broad yellowish cross band behind the eyes; reddish brown, with a narrow black vertebral line reaching the tip of tail; belly with black cross bands, sometimes extending on the sides.

Two varieties:—

*a.* Adult: injured. Nepal. Presented by B. H. Hodgson, Esq.

*Description of the specimen.*—Body rather slender, tail short; head short, with not much elongate occipitals; vertical with five angles, a rather convex front edge, and an acute angle behind. Scales in thirteen rows. Crown of head black, with a white cross band behind the eyes, extending to angle of mouth; above reddish brown, with a narrow black vertebral line from the neck to the tip of tail, occupying only one series of scales; beneath yellowish, along the middle of belly square black spots. Length of cleft of mouth  $\frac{1}{4}$ " ; length of tail  $1\frac{1}{2}$ " ; total length 18".

*b.* Adult. Nepal. Presented by B. H. Hodgson, Esq.

Differs from former in the coloration: the yellowish cross band on the crown is very broad, enclosing the entire vertical and two-thirds of the occipitals; belly with uninterrupted black cross bands, extending on the sides of back, so as to cover the scales of the four outer rows and to give the appearance of a lateral series of large black spots. The three last cross bands of the trunk form complete rings, crossing the longitudinal line; tail with three complete black rings, as generally in the East Indian *Elaps*. Length of cleft of mouth  $\frac{3}{8}$ " ; length of tail  $2\frac{1}{3}$ " ; total length  $26\frac{1}{3}$ ".

#### 5. ELAPS CALLIGASTER.

*Elaps calligaster*, *Wiegmann*, *N. Act.* 1835, t. 25. f. 2; *Dum. & Bibr.* p. 1226. *Elaps collaris*, (*Boie*) *Schleg. Ess.* ii. p. 448, and *Abbildg.* t. 46. f. 10, 11.

Above brownish black, with more or less distinct, very narrow, white, striolated cross bands; muzzle with some white spots; belly red (in spirits white) with black cross bands.

*a.* Adult. Philippine Islands. From Mr. Cuming's Collection.

## 6. ELAPS MACULICEPS.

Crown of head and neck black, symmetrically spotted and striped with yellowish; above uniform reddish white, sometimes with two series of small black spots; belly uniform white; tail with two black rings.

*a.* Adult. East Indies. From the Collection of the Zoological Society.

*b.* Half-grown. East Indies. From the Collection of the Zoological Society.

I may add to the above diagnosis, that the species is similar in habit to *E. intestinalis*; occipitals rather elongate; scales in thirteen rows; in the smaller specimen the back is uniform reddish olive; in the larger one two series of spots, as mentioned; and the scales with minutely brown-variegated edges.

## 7. ELAPS HYGIÆ.

*Seba*, ii. 24. 2, 34. 5, 35. 2, 54. 1. *Coluber lacteus*, *Linn. Mus. Ad. Fried.* i. t. 18. f. 1; *Lacép. Quadr. Ovip.* ii. p. 109; *Shaw, Zool.* iii. p. 427; *Cuv. Règne Anim.* *Cerastes lacteus*, *Laur. Syn. Rept.* p. 83. *Coluber hygiæ*, *Shaw, l. c.* p. 487. *Elaps lacteus*, *Schneid. Hist. Amph.* p. 293; *Merr. Tent.* p. 144. *Vipera lactea*, *Latr. Rept.* iv. p. 29. *Elaps punctatus*, *Smith, Edinb. N. Phil. Journ.* 1825, p. 2. *Elaps hygiæ*, *Merr. Beitr.* i. t. 6; *Wagl. Syst.* p. 193; *Schleg. Ess.* pl. 16. f. 14, 15; *Smith, Ill. of S. Afr. App.* p. 21; *Dum. & Bibr.* p. 1213.

Crown of head black-spotted, with a rose-coloured medial longitudinal streak. Body yellowish, with more or less regular black spots, sometimes separated by a rose-coloured vertebral band.

*a-c.* Adult and half-grown. Cape of Good Hope. Presented by Sir J. Macgregor.

*d.* Adult: without head. Cape of Good Hope. From the Haslar Collection.

*e.* Adult. Cape of Good Hope. Presented by Lady Harvey.

*f.* Adult. Cape of Good Hope. From M. Parzudaki's Collection.

*g.* Half-grown. Cape of Good Hope.

*h.* Half-grown. Cape of Good Hope. Presented by Dr. Lee.

*i, k.* Half-grown and young. Cape of Good Hope. Presented by Mr. Wing.

*l.* Young. Cape of Good Hope. Presented by E. Ford, Esq.

*m.* Adult. South Africa.

*n.* Adult. South Africa.

- o, p.* Adult. South Africa. From the Haslar Collection.
- q.* Adult. South Africa. From Mr. Argent's Collection.
- r.* Adult. South Africa. From Mr. Argent's Collection.
- s.* Adult. South Africa. From Mr. Argent's Collection.
- t, u.* Adult and young. S. Africa. From the Haslar Collection.
- v.* Adult. South Africa.
- w.* Adult : head injured. S. Africa. From the Haslar Collection.
- x.* Half-grown. South Africa.
- y.* Half-grown. South Africa.
- z, a.* Young. South Africa.
- β.* Young. South Africa. Presented by N. G. Harrington, Esq.

### 8. ELAPS CORALLINUS.

*Coluber corallinus*, *Linn. Mus. Ad. Fried.* i. p. 33. *Elaps corallinus*, *Wied. Nova Act.* 1820, pl. 4; *Wagl. Syst.* p. 193; *Schleg. Ess.* pl. 16. f. 1-5; *Cuv. Règne Anim. Ill.* pl. 35; *Dum. & Bibr.* p. 1207.

Body encircled by equidistant black rings; muzzle and forehead black.

- a.* Adult. Brazil. From M. Parzudaki's Collection.
- b.* Half-grown. Brazil. Presented by Dr. A. Smith.
- c.* Half-grown. Interior of Brazil. From Dr. Gardiner's Collection.
- d.* Half-grown. Para.
- e.* Adult. Argentine Republic. Presented by the Zoological Society.
- f.* Half-grown. South America. Presented by G. Busk, Esq.
- g.* Adult. Trinidad. Mus. Guilding, as *Natrix cincta*.
- h.* Half-grown. West Indies. Presented by Colonel Reid.
- i.* Adult. S. America. From the Haslar Collection.
- k.* Adult. S. America. From the Haslar Collection.
- l.* Adult. S. America. From the Haslar Collection.
- m.* Adult. S. America. From Mr. Mather's Collection.
- n.* Half-grown. America. Mus. Guilding.
- o.* Half-grown. America.
- p.* Half-grown. America. Presented by Sir J. Macgregor.
- q.* Half-grown. America.
- r, s.* Half-grown. America.
- t.* Half-grown. America. From the Haslar Collection.

Var. *Elaps circinalis*, *Dum. & Bibr.* p. 1210. Rings with narrow punctated white edges.

- u.* Adult. Guayaquil.
- v.* Half-grown. Brazil.
- w.* Half-grown. Para. From Mr. Stevens's Collection.



- x. Half-grown. America. Presented by Captain E. Barnett.  
White edges rather large.
- y. Half-grown. America.

Var. *Vipera psyche*, *Daud. Rept.* viii. p. 320. *Elaps psyche*, *Merr. Tent.* p. 144; *Dum. & Bibr.* p. 1212. *Elaps corallinus*, var., *Kaup, Isis*, 1825, pp. 589 & 1089; *Schleg. Ess.* p. 440.

Back between the rings black; belly between the rings checkered with black.

- z. Adult. Surinam. From Mr. Frank's Collection.
- a. Adult. Sine patria.

## 9. ELAPS OCCIPITALIS.

*Dum. & Bibr.* p. 1220.

Muzzle and crown of head black, with a white cross band before the eyes; body encircled by equidistant alternate black and white rings, the white of which are much narrower.

*Hab.* — ?

- a, b. Adult and half-grown. From the Haslar Collection.

## 10. ELAPS SURINAMENSIS.

*Seba*, ii. 6. 2, 86. 1; ? *Shaw, Zool.* iii. pl. 115. *Elaps surinamensis*, *Cuvier, Règne Anim.*; *Schleg. Ess.* pl. 16. f. 8, 9, and *Abbildg.* t. 46. f. 9; *Dum. & Bibr.* p. 1224.

Shields of crown white (in spirits), black-edged; body encircled by black rings, always three together, middle one three or four times as large as the other ones. Surinam.

## 11. ELAPS LEMNISCATUS.

*Seba*, i. 10. 1, ii. 27. 2, 34. 3; *Scheuchz.* t. 648. f. 4. *Coluber lemniscatus*, *Linn. Mus. Ad. Fried.* i. t. 14. f. 1. *Elaps lemniscatus*, *Schneid. Hist. Amph.* p. 291; *Cuv. Règne Anim.*; *Schleg. Ess.* pl. 14. f. 6, 7, and *Abbildg.* t. 46. f. 15–19 (anatomy); *Dum. & Bibr.* p. 1217. *Vipera lemniscata*, *Daud. Rept.* vi. p. 13. 227.

Body encircled by black rings, always three together, middle one broadest. Muzzle and crown between the eyes black, generally with a white cross band before the eyes.

- a. Adult. Brazil. From Mr. Clausen's Collection.
- b. Adult. Brazil.
- c. Half-grown. Brazil. From M. Parzudaki's Collection.
- d. Adult. Bahia. From the Haslar Collection.
- e. Nearly half-grown. Bahia. From the Haslar Collection.



- f. Adult. Pernambuco. Presented by J. P. G. Smith, Esq.
- g. Half-grown. Para. From Mr. Stevens's Collection.
- h. Half-grown. St. Vincent's. Mus. Guilding, as *Natrix cincta*.
- i. Half-grown. Trinidad. Mus. Guilding, as *Natrix zonata*.
- k. Adult: head injured. America.
- l. Adult. America. From Mr. Mather's Collection.
- m. Adult. America. Presented by Mr. Chantellier.
- n. Adult. America. From the Haslar Collection.
- o. Half-grown. America. From the Haslar Collection.
- p. Half-grown. America. Presented by the Zoological Society.
- q. Half-grown. America. From M. Parzudaki's Collection.
- r. Half-grown. America. Mus. Guilding, as *N. zonata*.
- s. Young. America.

Var. *E. maregravii*, *Dum. & Bibr.* p. 1209. No white cross band before the eyes.

- t. Very large specimen. Para. From Mr. Stevens's Collection.
- u. Very large specimen. S. America. From the Collection of the Zoological Society.
- v, w. Adult. Brazil. From Mr. Clausen's Collection.
- x. Half-grown. Brazil. From Mr. Clausen's Collection.
- y. Adult. Caraccas. From M. Parzudaki's Collection as *E. frontalis*.

## 12. ELAPS FULVIUS.

*Coluber fulvius*, *Linn. Syst. Nat.* i. p. 381; *Lacép. Quadr. Ovip.* ii. p. 299; *Latr. Rept.* iv. p. 140; *Daud. Rept.* vi. p. 300; *Shaw, Zool.* iii. p. 469. *Vipera fulvia*, *Harl. Journ. Ac. Nat. Sc. Philad.* 1827, p. 364, and *Med. Phys. Res.* 1835, p. 127. *Elaps fulvius*, *Cuv. Règne Anim.*; *Audubon, Ornithol.* i. pl. 44; *Holbr. N. Amer. Herpet.* iii. pl. 10; *Baird & Girard, Catal.* p. 21; *Dum. & Bibr.* p. 1215.

Muzzle and forehead black, a broad yellowish occipital band behind; body encircled by very broad, black, yellow-edged rings.

- a. Adult. N. America. Presented by Edward Doubleday, Esq.
- b-d. Half-grown. N. America. A black longitudinal streak crossing the occipital band.
- e. Adult. California. Presented by Mrs. Drummond.
- f. Adult. Texas. From Mr. Brandt's Collection.
- g. Adult. Texas.
- h-k. Adult. Mexico. From Mr. Warwick's Collection.
- l. Many specimens. Mexico. From Mr. Warwick's Collection.
- m. Half-grown. Mexico. From M. Sallé's Collection.

- n. Half-grown. Mexico. From Mr. Hugo Finck's Collection.  
Was taken in the act of swallowing a *Homalocranium semicinctum* one inch longer than itself.
- o. Young. Venezuela. From Mr. Dyson's Collection.
- p. Young: bad state. Venezuela. From Mr. Dyson's Collection.
- q. Nearly half-grown. Belize. Presented by the Rev. J. Gregg.
- r. Young. Honduras.
- s. Adult. Sine patria. = b.
- t, u. Adult and half-grown. Sine patria.
- v. Adult. Sine patria. Presented by the College of Surgeons.  
Exhibits only sixteen very broad rings.
- w. Adult. Sine patria.
- x, y. Half-grown. Sine patria. From the Haslar Collection.
- z. Half-grown. Sine patria. Presented by Mrs. Mauger. = b.
- a. Half-grown. Sine patria. Mus. Guilding. = b.
- β. Half-grown: rather discoloured. Sine patria.
- γ. Young. Sine patria.

### 13. ELAPS EPISTEMA.

*Dum. & Bibr.* p. 1222.

Trunk above with ten large, rounded, black, white-edged spots; tail encircled by three broad black rings. Mexico.

### 13. VERMICELLA, Gray.

Body elongate, rounded; tail very short; head similar to *Elaps*; one nasal, pierced by the nostril; no loreal, replaced by anterior ocular and nasal; one anterior, two posterior oculars. Scales smooth, not much imbricate, in fifteen rows; those of the vertebral line not larger; anal and subcaudals bifid. Grooved minute fang in front; no other tooth behind. Australia.

*Gray, MSS. Brit. Mus.*

This genus shows the remarkable fact, that the Australian *Conocerci* without smooth teeth behind the fang, are more closely allied to the American *Elaps* than to the East Indian ones.

#### 1. VERMICELLA ANNULATA.

Snake no. 2, *White, Journ. N. S. Wales*, 1790, *App.* p. 259, with fig. *Vermicella annulata*, Gray, *MSS. Brit. Mus.*

Body and tail encircled by alternate white and black rings.

*a.* Adult. Swan River.

*b, c.* Half-grown. W. Australia.

*d.* Half-grown: bad state. W. Australia.

*Description.*—Body elongate, rounded, slightly compressed towards behind; tail very short; head moderate, not distinct from neck, similar to *Elaps*; rostral shield very large, rounded, raised above the surface of snout; occipitals rather narrow; two posterior oculars; anterior large, replacing the loreal together with the nasal; nasal shield single, pierced in the centre by the small nostril; six upper labials, third and fourth coming into the orbit; one large temporal shield in contact with the upper posterior ocular, two smaller ones behind. Scales smooth, large, rather rounded behind, in fifteen rows. Anal and subcaudals bifid. Tail ending in an obtuse conical scale. Two small fangs in front of upper jaw, no other teeth behind; palatine and mandibular teeth equal in length. Crown of head and muzzle black; a yellowish band across the posterior frontals, a second on the neck; body and tail encircled by alternate black and white (in spirits) rings. Length of cleft of mouth  $\frac{1}{2}$ "; length of tail  $1\frac{1}{2}$ "; total length 28".

C. *Venomous Snakes with perforated, permanently erect fangs.*

Fam. XIV. DENDRASPIDIDÆ.

Characters and synonymy the same as of the only genus.

1. DENDRASPIDIS, *Schlegel*.

Body and tail very elongate and slender; belly flat; head quadrangular, elongate, distinct from neck, with flat crown and elongate muzzle; shields of crown regular; two nasals, nostril between; loreal replaced by posterior frontal; three anterior, four posterior oculars. Scales smooth, much imbricate, in seventeen or nineteen rows, those of the vertebral line larger, triangular. Anterior ribs shorter than following. Anal bifid; subcaudals two-rowed. Perforated fang in front, no other smooth teeth behind; anterior tooth of lower jaw longest, separated from the hinder ones by an interspace. South and West Africa.

*Dendraspis*, *Schlegel*, *Verslag Zoöl. genootsch. Amsterd.* 1848. *Dendroëchis*, *Fischer, Michaëlis, Programm Hamb. Realschule*, 1855, p. 20. *Chloroëchis*, *Bonap. Proc. Zool. Soc.* 1849, p. 145. *Leptophis*, sp., *Hallowell*. *Dinophis*, *Hallowell, Proc. Ac. Nat. Sc. Philad.* 1852, p. 203. *Elaps*, sp., *Traill*. *Naja*, sp., *A. Smith, Dum. & Bibr.*

1. DENDRASPIDIS ANGUSTICEPS.

*Naja angusticeps*, *Smith, Ill. of S. Afr.* pl. 70; *Dum. & Bibr.* p. 1301. *Chloroëchis angusticeps*, (*Schlegel*) *Peters in Wiegman Archiv*, 1855; *A. Dum. l. c.* p. 556.

Scales in seventeen (nineteen) rows; ventral plates 270; subcaudals 115.

- a. Young. Niger Expedition. From Mr. Fraser's Collection.
- b. Adult. W. Africa. From Mr. Rich's Collection.
- c. Adult. Africa. Presented by J. Bann, Esq.
- d. Adult: head injured. Africa. From the Haslar Collection.
- e. Adult. Africa.
- f. Skull of an adult.

2. DENDRASPIDIS JAMESONII.

*Elaps jamesonii*, *Traill in Translation of Schlegel's Essai*, 1843, p. 179. pl. 2. f. 19, 20. *Leptophis viridis*, *Hallowell, Proc. Ac. Nat. Sc. Philad.* 1844, p. 172. *Dendraspis jamesonii*, *Schleg. Verslag der werkzaamheden van het Zoöl. genootsch. Amsterd.* 1848. *Chloroëchis jamesonii*, *Bonap. Proc. Zool. Soc.*



1849, p. 145. *Dinophis hammondii*, *Hallow. l. c.* 1852, p. 203. *Dendroëchis reticulata*, *Fischer, Michaëlis-Programm der Hamb. Realschule*, 1855, p. 20. *Dendraspis jamesonii*, *Fischer, Abhdlg. Gebiete der Naturw. Hamb.* 1856, pl. 1, and *A. Dum. l. c.* p. 556.

Scales very large, in thirteen rows; ventral plates 220; subcaudals 115.

*a.* Adult. Coast of Guinea.

*b.* Adult. West Africa. From Mr. Rich's Collection.

## Fam. XV. ATRACTASPIDIDÆ.

Characters and synonymy the same as of the only genus.

### 1. ATRACTASPIS, *Smith*.

Body moderate, rounded; tail rather short, not distinct from trunk, ending in a very acute conical spine; head short, broad, depressed, not distinct from neck, with much depressed rounded muzzle; cleft of mouth short. Eye very small. Rostral shield broad, protruding, extending between the anterior frontals; two nasals, nostril between; one anterior, one posterior ocular; no loreal. Scales small, smooth, rounded, in nineteen or twenty-five rows; subcaudals entire. One or two very long perforated fangs in front, without any other teeth behind. South and West Africa.

*Atractaspis*, *Smith, Ill. of the Zool. of S. Africa; Hallowell, Proc. Ac. Nat. Sc. Philad.* 1857, p. 70. *Elaps*, sp., *Reinhardt, Beskrivelse of nogle nye slangearter, Kopenh.* 1843, p. 41.

#### 1. ATRACTASPIS IRREGULARIS.

*Elaps irregularis*, *Reinhardt, l. c.* pl. 78. f. 2. *Atractaspis bibronii*, *Smith, Ill. of S. Afr.* pl. 71; *Dum. & Bibr.* p. 1303; *Peters in Wieg. Archiv*, 1855, p. 55.

Greyish olive above, paler beneath. Scales in nineteen rows.

*a.* Adult male. S. Africa.

#### 2. ATRACTASPIS CORPULENTUS.

*Hallowell, Proc. Ac. Nat. Sc. Philad.* 1857, p. 70.

Scales in twenty-five rows. W. Africa.

## APPENDIX

TO THE

## CATALOGUE OF COLUBRINE SNAKES.

THIS Appendix contains an account of the specimens of Colubrine Snakes collected by the British Museum during the printing of this Catalogue, and received too late for insertion in their proper places. By these additions some alterations became necessary, and means were afforded for describing some new species.

Page 2. Add to the *Synopsis of the Genera*.

To RHABDOSOMA. Two nasals, nostril between.

6 a. RHABDION. Scales smooth; subcaudals two-rowed; rostral rounded; two pairs of frontals; one nasal; loreal united with ante-ocular; anal entire; teeth smooth. Celebes.

14 a. ARRHYTON. Scales smooth; subcaudals two-rowed; rostral rounded; two pairs of frontals; two nasals; loreal united with posterior frontal; anal bifid; posterior maxillary teeth longest, smooth. Cuba.

Page 4. CALAMARIA LINNÆI.

k-m. Young. East Indies. Presented by the Hon. East India Company.

Page 4. Add to CALAMARIA.

2 b. CALAMARIA MODESTA.

*Calamaria modesta*, Dum. & Bibr. p. 74.

Scales in thirteen rows; upper labials five; first pair of lower labials forming together a suture; no azygos scale between the chin-shields; above uniform brownish, beneath whitish. Java.

a. Adult. East Indies. Presented by the Hon. East India Company. From Dr. Cantor's Collection as *Calamaria lumbricoidea*.

Page 8. RHINOSTOMA NASUUM.

d. Fine adult specimen. St. Marthe. From M. Parzudaki's Collection.

Page 10. Add to the diagnosis of RHABDOSOMA.

In one species, loreal shield united with posterior frontal ; scales in one species in thirteen rows.

Page 11. RHABDOSOMA BADIUM.

c. Adult: fine specimen. Surinam. From M. Parzudaki's Collection.

Page 11. RHABDOSOMA CRASSICAUDATUM.

c. Adult. New Granada. From M. Parzudaki's Collection.

Page 11. Add to RHABDOSOMA two new species.

3 a. RHABDOSOMA MACULATUM.

Upper labials seven, the third and fourth coming into the orbit ; one pair of chin-shields. Scales in seventeen rows. Body rather stout, tail short. Brown or whitish (in spirits) with irregular black transverse spots and bands ; belly uniform yellowish.

a. Adult. Sine patria.

b. Adult. Rio Janeiro. Presented by A. Fry, Esq.

c. Half-grown. Rio Janeiro. Presented by A. Fry, Esq.

This species is described, p. 204, as *Isoscelis maculata*, and is placed in the family of the *Lycodontidæ*. I had then only one specimen, the front tooth of which appeared to be much longer and stronger, because the remainder were just in a condition to be changed. The other specimens show that the teeth are not of unequal length, as is the case in the *Lycodontidæ* ; one specimen even exhibits the middle teeth longer than the anterior and posterior ones. The ground colour in one specimen is brown, in the other brownish yellow, and in the third whitish (red in life?). In the half-grown individual, the vertical shield exhibits the lateral edges slightly angularly curved.

3 b. RHABDOSOMA ELAPS.

?? Elaps decussatus, *Dum. & Bibr.* p. 1221.

Upper labials six, the third and fourth coming into the orbit ; one pair of chin-shields. Scales in fifteen rows. Body rather elongate ; tail rather short. Ground-colour yellow ; body and tail encircled by about thirty broad black rings.

a. Adult. Guayaquil. From Mr. Fraser's Collection.

*Description of the specimen.*—This snake has so much the appearance of an *Elaps*, both in physiognomy and coloration, that, without examining the dentition, one might take it for a



species of that genus; and Duméril's description of *Elaps decussatus* being in accordance with our specimen, and both specimens coming from the North-western part of South America, both species may prove to be identical, provided *Elaps decussatus* has not the dentition of *Elaps*.

Body elongate, cylindrical; head rather narrow, of equal width, not distinct from neck; tail rather short, not distinct from trunk, ending in a blunt conical scale; muzzle rounded, blunt; eye small. Rostral shield moderate, rounded, reaching to the surface of forehead, with an obtuse angle behind and a transverse groove beneath; anterior frontals much smaller than posterior ones; vertical shield five-sided, broader than long, with a rather convex front-side, with the lateral sides shortest and convergent, and with a right angle behind; occipitals moderate, rounded behind; superciliary small; nostril between two shields; one anterior ocular, smaller than posterior nasal, and far distant from vertical shield; one semilunar posterior ocular in contact with a single temporal shield, behind which are three other ones; six upper labials, the third and fourth of which come into the orbit; the first four are nearly equal in size, the fifth as large as the two preceding together, the sixth equal to the fifth; the first pair of lower labials form together a suture behind the medial one; one pair of chin-shields behind. Scales moderate, in fifteen rows, those of the vertebral series somewhat irregular on the hinder part of the body; anal entire; subcaudals two-rowed. Upper parts of head black, with a yellow narrow band across the front edge of the posterior frontals; another band across the occiput; under side of the head, two anterior labials and temple yellow. Ground-colour of trunk orange-coloured, but the black rings encircling the trunk are so confluent on the back, as nearly to suppress the yellow rings; the latter are formed by scales, which have a black central streak and a black tip, and only yellow outer edges; moreover each black band is crossed by another yellow variegated narrow band, which does not extend on the belly. On the belly the black and yellow bands are more equal, each occupying three or four ventral plates. The ground-colour of the tail is bright red, and the black rings are smaller. There are on each side of the upper jaw seven strongly-curved small teeth of nearly equal length, none of which are grooved. Length of cleft of mouth  $\frac{3}{8}$ "; length of tail 2"; total length 15".

Page 13. Add to RHABDOSOMA a third new species.

#### 8. RHABDOSOMA OXYCEPHALUM.

Upper labials five, the third and fourth coming into the orbit; the fifth forming a long suture with the occipital shield; one



temporal shield behind the suture. Uniform dusky blackish ash.

*a.* Adult. Philippines. From Mr. Cuming's Collection.

*Description of the specimen.*—Body moderate; tail very short, rather distinct from trunk, tapering; head small, narrow, with rather elongate and pointed muzzle, not distinct from neck; eye very small. Rostral shield small, with a slight groove in front just reaching the surface of forehead; anterior frontals small, posterior ones very large, forming the upper anterior edge of orbit, in direct contact with the second and third labial shields; vertical six-sided, as broad as long, with an obtuse angle in front and an acute one behind, lateral edges short, nearly parallel; occipitals moderate; superciliary small, and in this specimen it is united with posterior ocular: this may prove a peculiar character of the species. The loreal, which in the other species of *Rhabdosoma* forms a separate shield together with the ante-orbital, is here united with the posterior frontal; five upper labials, the third and fourth coming into the orbit; the fifth as large as the two preceding together, and forming a suture with the occipital shield, as in *Rhabdion*; one large temporal shield, not in contact with the shield behind the eye; two very small nasals, nostril between; medial lower labial small, the other labials narrow; two pairs of large chin-shields. Scales rather large, in fifteen rows; anal entire. Above uniform dusky blackish ash, the edges of the scales in the lateral series and of the ventral plates lighter. Teeth equal, smooth. Length of cleft of mouth  $\frac{3}{8}$ "; length of tail  $\frac{3}{4}$ "; total length 12".

Page 13. Add: 6 *a.* RHABDION, *Dum. & Bibr.*

Two pairs of frontal shields, front pair smaller than the hinder one; rostral rather small; one nasal, pierced by the nostril; anterior ocular united with the loreal; one posterior ocular. Scales smooth, rounded behind, in fifteen rows; anal entire; subcaudals two-rowed. Teeth equal, smooth. Celebes.

*Rhabdion*, sp., *Dum. & Bibr.* vii. p. 115.

# 1. RHABDION FORSTENI.

*Rhabdion forsteni*, *Dum. & Bibr.* p. 116.

Upper labials six, the fifth largest. Uniform dusky blackish ash.

*a.* Adult. Celebes. From Mr. Frank's Collection, as *Calamaria conica*.

*b.* Half-grown. Celebes. From M. Parzudaki's Collection.

Page 19. Add: 14 *a.* ARRHYTON, *Günther*.

Body and tail moderate; head depressed, with flat crown; two pairs of frontal shields, anterior ones much smaller; two nasals, nostril between; loreal none, united with posterior frontal; one anterior, two posterior oculars. Scales smooth, rhomboidal, in seventeen rows; anal bifid; subcaudals two-rowed. Posterior maxillary tooth longest, separated by an interval from the anterior ones, smooth. Cuba.

1. ARRHYTON TÆNIATUM.

Back with three brown longitudinal streaks.

*a.* Cuba. Presented by the Zoological Society.

*Description of the specimen.*—Head flat, depressed, hardly distinct from neck, with obliquely truncated muzzle; body cylindrical, with broad rounded back; tail moderate, not distinct from trunk, tapering. Rostral shield broader than high, rounded behind, reaching the surface of forehead; anterior frontals rather small, quadrangular; posterior ones much larger, bent on the sides, replacing the loreal, in direct contact with second and third upper labials; vertical large, pentangular, with nearly parallel outer edges and a right angle behind; occipitals moderate, rounded behind; two nasals, nostril between; one anterior and two posterior oculars; one temporal shield in front, in contact with both oculars, two pairs of smaller ones behind; seven upper labials, the third and fourth of which form the lower edge of orbit; the first pair of lower labials forming a suture together behind the terminal one; two pairs of chin-shields behind. Scales short, rhombic, not much imbricate, polished, in seventeen rows; anal and subcaudals bifid. Dentition as above mentioned. Reddish white, with three brown longitudinal streaks, the dorsal one beginning from the occipital suture, the lateral ones from the back edge of eye, all reaching the end of tail; upper shields of head brown, with whitish edges; belly uniform white.

I do not know whether the specimen is in an adult or in a younger state. Length of cleft of mouth  $\frac{1}{3}$ " ; length of tail 2" ; total length 9".

Page 23. Add to the *Synopsis of the Genera*.

To CORONELLA. One or two nasals.

7 *a.* STENORHINA. No separate nasal. Mexico.

Page 24. SIMOTES OCTOLINEATUS.

*o.* Half-grown. Sumatra. From the Collection of the Zoological Society.

## Page 25. SIMOTES PURPURASCENS, Var. D.

*g'*. Adult: not good state. Nepal. Presented by B. H. Hodgson, Esq.

## Page 29. Add to ABLABES.

5 *a*. ABLABES PURPUREOCAUDA.

Scales in fifteen rows; upper labials seven, third and fourth touching the eye. Above brown, along each side of back a purple-coloured streak, lost on the hinder half of the tail, which is purple-coloured.

*a, b*. California. From Mr. Bridges' Collection.

*Description*.—In general appearance similar to *Coronella austriaca*; head moderate, not very distinct from neck, depressed, with flat crown, and rounded, blunt muzzle; body cylindrical, with broad back; tail not distinct from trunk, cylindrically tapering. Rostral shield rounded, just reaching the surface of forehead; frontals moderate; vertical six-sided, with an obtuse angle in front and an acute one behind, with rather convergent lateral edges; occipitals moderate, rounded behind; *one nasal*, pierced by the nostril; one oblong loreal; one anterior ocular, not reaching the surface of crown, two posterior ones; one elongate temporal shield in front, in contact with both oculars, two pairs of smaller ones behind; seven upper labials, the third and fourth of which form the lower edge of orbit; first pair of lower labial shields forming together a suture behind the terminal one; two pairs of chin-shields behind, the front pair of which is much larger. Scales quite smooth, rounded, in fifteen rows; anal bifid; maxillary teeth equal and not grooved. Ground-colour brown, as in *Coronella austriaca*; from each temple a purple-coloured streak runs along each side of the back; hinder half of tail purple-coloured. After having removed the epidermis, a greyish colour appears; through the eye a darker streak; belly brownish grey, each plate being black-edged. Length of cleft of mouth  $\frac{1}{4}$ "; length of tail  $1\frac{1}{4}$ "; total length  $8\frac{1}{2}$ ". The specimens may prove to be half-grown individuals.

## Page 30. TRACHISCHIUM.

Having had an opportunity of examining three specimens sent from Nepal by Mr. B. H. Hodgson, and some other ones in the Collection of the East India Company, I have convinced myself that this genus belongs to the family of the CALAMARIDÆ: the diagnosis remains the same.



*b.* Adult. Nepal. Presented by B. H. Hodgson, Esq.

*c, d.* Adult: bad state. Nepal. Presented by B. H. Hodgson, Esq.

Page 32. PSAMMOPHYLAX RHOMBEATUS.

*f'.* Adult. Cape of Good Hope. From M. Parzudaki's Collection.

Page 34. TACHYMENIS CHILENSIS.

Add to the synonymy: *Girard, in U. S. Naval Astron. Exped. pl. 37. f. 1-6* (nasal wrong).

Page 46. LIOPHIS MERREMII (doliatus).

*dd, ee.* South America.

Page 46. LIOPHIS TÆNIURUS.

*c-e.* Adult and half-grown. Guayaquil. From Mr. Fraser's Collection.—The narrower black streak of the two sometimes disappears with age.

Page 47. Add: 7 *a.* STENORHINA, *Dum. & Bibr.*

Head moderate, not very distinct from neck, with flat crown; rostral shield moderate, rounded; anterior nasal united with anterior frontal shield, posterior nasal united with loreal; nostril between; one anterior, two posterior oculars. Scales smooth, in seventeen rows. Posterior maxillary teeth grooved. Central America.

*Stenorhina, Dum. & Bibr. vii. p. 865. Microphis, Hallowell.*

1. STENORHINA VENTRALIS.

*Stenorhina ventralis, Dum. & Bibr. p. 867.*

Back with black transverse spots; belly yellowish, with blackish spots, forming together a longitudinal band. Guatemala.

2. STENORHINA FREMINVILLEI.

*Stenorhina freminvillei, Dum. & Bibr. p. 868. pl. 70. f. 1, 2. Microphis quinquelineatus, Hallowell.*

Back with three or five black longitudinal streaks.

*a.* Adult. Mexico. From M. Parzudaki's Collection.



Page 48. *ERYTHROLAMPRUS VENUSTISSIMUS*. Add:

Var. E. Head and neck black; body entirely white, with a dorsal series of large black spots; scales of the back with black tips; tail with pairs of black rings.

k. Adult. America. Presented by the College of Surgeons.

Page 49. *HYPsirhynchus ferox*.

Add to the end of the description:—There are now several snakes known from Barbadoes.

Page 54. *XENODON SEVERUS*.

Var. A. Adult.

c'. Para. From M. Bazali's Collection.

Var. C. Adult.

g'. South America. From the Collection of the Zoological Society.

g''. Guayaquil. From Mr. Fraser's Collection.

*Young specimen.*

g'''. Guayaquil. From Mr. Fraser's Collection.

Page 63. *TROPIDONOTUS HYDRUS*.

h. Adult. Sine patria. From the Collection of the Zoological Society.

i. Young. Sine patria. From the Collection of the Zoological Society.

Page 67. Add: 6 a. *TROPIDONOTUS PUNCTULATUS*.

Scales in seventeen rows; anal bifid; nine upper labials, fourth and fifth coming into the orbit; one anterior, two posterior oculars. Blackish ash above, each scale of the two outer rows with a white spot, forming together a lateral band.

a. Adult. Sine patria. From the Collection of the Zoological Society.

*Description of the specimen.*—In habit similar to *T. natrix*. Rostral shield reaching the surface of head; anterior frontals triangular, rather pointed in front; vertical more than twice as long as broad, with nearly parallel outer edges, and a right angle behind; occipitals rather narrow and pointed behind; anterior ocular and loreal large, the lower posterior ocular very narrow and elongate, forming a part of the hinder and a part of the

lower edge of orbit; in other specimens it may prove to be separated into two. Two temporal shields in contact with both oculars, and about six smaller ones behind; nine upper labials, the fourth and fifth coming into the orbit. Scales very slightly keeled, in seventeen rows; the keels only conspicuous on the posterior part of body. Upper parts dusky blackish ash, some scales with irregularly scattered, white, very small specks; each scale of the two outer rows with a large round whitish spot, forming a band, which is not continued on the tail; belly whitish, the ventral plates with blackish outer edges. Three of the hinder maxillary teeth rather larger than the anterior ones, all being nearly equidistant one from the other. Length of cleft of mouth  $\frac{5}{8}$ "; length of tail  $4\frac{1}{2}$ "; total length 22".

Page 70. *TROPIDONOTUS TRIANGULIGERUS*.

*g.* Adult. East Indies. From the Collection of the Zoological Society.

Page 76. *TROPIDONOTUS FASCIATUS*, Var. B.

♂, ♀'. Young: not good state. America. Presented by the College of Surgeons.

Page 77.

*Tropidonotus pogonias*, Dum. & Bibr., is to be considered as a variety, not of *T. fasciatus*, but of *T. cyclopion*. The principal character of *T. cyclopion* is the great number of longitudinal rows of scales: not all the specimens have the orbit enclosed by a continuous chain of small shields. To this species belong the specimens *q*, *t* and *i*, referred to *T. fasciatus*, p. 77.

Therefore the text is to be changed, as follows:—

18. *TROPIDONOTUS CYCLOPION*.

Scales in twenty-seven or twenty-nine rows; upper labials eight, the fourth only touching the eye, but sometimes smaller scales between orbit and labial shields. Three series of quadrangular black spots, the dorsal of which alternate with the lateral ones.

*a.* Half-grown. Louisiana.

*b.* Half-grown. New Orleans. From Mr. Cuming's Collection.

Var. A. *Tropidonotus cyclopion*, Dum. & Bibr. p. 576. Orbit enclosed by a continuous chain of small shields. Lead-coloured, obscurely black-spotted.

*c.* Adult. New Orleans. From Mr. Cuming's Collection.

Var. B. *Tropidonotus pogonias*, *Dum. & Bibr.* p. 574.  
Shields of chin with small rough tubercles.

d. Adult. New Orleans. From M. Sallé's Collection.

Page 82. HETERODON PLATYRHINOS.

l. Half-grown. North America.

Page 89. Add: 4a. COLUBER GETULUS.

*Seba*, ii. 53. 1. *Anguis annulatus*, *Catesby*, *Nat. Hist. Carol.* ii. p. 52. t. 52. *Coluber getulus*, *L. Syst. Nat.* i. p. 382; *Harl. Journ. Acad. Nat. Sc. Philad.* v. p. 358, and *Med. Phys. Res.* 1835, p. 122; *Lacép. Quadr. Ovip.* ii. p. 300; *Latr. Rept.* iv. p. 174; *Daud. Rept.* vi. p. 314. ? *Herpetodryas getulus*, *Schleg. Ess.* p. 198 (cfr. *Coronella sayi*, p. 41). *Coronella getula*, *Holbr. N. Amer. Herpetol.* iii. p. 95. pl. 21; *Dum. & Bibr.* p. 616. *Ophibolus getulus*, *Baird & Girard, Catal.* p. 85.

Body and tail moderate, compressed. Scales smooth, in twenty-one rows; anal entire. Above black, with narrow yellowish cross bands, bifurcating on the flanks, each fork embracing a large black spot and confluent with that of the next cross band. Belly more or less chequered with black.

a. Adult. N. America. From the Collection of the Zool. Soc.

b. Adult. N. America.

c. Half-grown. N. America.

d. Younger. N. America. Presented by Lord Orkney.

In the *Erpétologie générale* this snake is placed in the genus *Coronella*. I examined the dentition of both adult specimens, and found all the teeth of equal length. *Coluber getulus* is often confounded with a variety of *Coronella sayi* exhibiting irregular cross-bands. Should the difference in the dentition prove to be such as I found on examination, this would be the most important character to avoid further mistake.

Page 98. SPILOTES RETICULARIS.

g, h. Adult and half-grown. Nepal. Presented by B. H. Hodgson, Esq.

Page 100. SPILOTES PÆCILOSTOMA.

Add to the synonymy: *Dipsas dieperinkii*, *Schlegel, Essai*, p. 282.

b'. Adult male. Guayaquil. From Mr. Fraser's Collection.

Page 102. ZAMENIS ATROVIRENS.

s. Young. Alps. Presented by the Rev. S. W. King.

## Page 103. ZAMENIS HIPPOCREPIS.

*f'*. Very large specimen. Mogador.—Belly red.

## Page 104. ZAMENIS CLIFFORDII.

*i*. Adult. Africa. From the Collection of the Zoological Society.

## Page 109. CORYPHODON MARGARITIFERUS.

It was not until the first sheets of this Catalogue were printed that I saw Fischer's paper in the *Hamburger Abhandlungen aus dem Gebiete der Ntrwiss.* 1856, where I at once recognized the identity of the above species with his *Meizodon regularis*, p. 112. I was very glad to see how perfectly his description agrees with my own, and I think it quite right that he has established a new genus for this species.

## Page 110. CORYPHODON KORROS.

*i*. Half-grown. East Indies. Presented by the E.I. Company.

## Page 113. CORYPHODON CARINATUS.

*h*. Adult: injured. Nepal. Presented by B. H. Hodgson, Esq.  
*i*. Young. Nepal. Presented by B. H. Hodgson, Esq.

## Page 114. HERPETODRYAS FUSCUS.

*h'*. Adult. Guayaquil. From Mr. Fraser's Collection.  
*h''*. Half-grown. Guayaquil. From Mr. Fraser's Collection.

## Page 115. HERPETODRYAS CARINATUS.

*q*. Half-grown. South America. From the Collection of the Zoological Society. = *p*.

Page 121. Add: 4*a*. CYCLOPHIS CALAMARIA.

Loreal none, united with the single nasal shield; seven upper labials. Greyish brown; front part of back on each side with a series of obsolete blackish spots, confluent behind and forming a very narrow, undulated line.

*a*. Adult. Ceylon.

*b*. Adult. Ceylon. From the Collection of the Zoological Society.

*Description*.—Habit moderately slender; head elongate, ovoid with rounded crown, and with moderate, rather conical muzzle. Rostral shield rather large, reaching the surface of crown, rounded behind; anterior frontals much smaller than posterior ones;



the latter covering a part of the side of head, but separated from the labials by the nasal shield; vertical shield more than twice as long as broad, with rather convergent lateral edges and an acute angle behind; occipitals moderate, rounded behind. Nasal single, very large, pierced by the nostril, in direct contact with the single anterior ocular; two posterior oculars in contact with a large temporal shield; two smaller ones behind; seven upper labials, the third and fourth of which form the lower edge of orbit. The first pair of lower labials forms a suture behind the terminal one, and the hinder edges of these shields are situated nearly in a straight line; two pairs of elongate chin-shields behind. Scales rhombic, in fifteen rows, smooth; ventral plates hardly raised on the sides; anal bifid. Upper parts greyish or greyish brown; on the sides each scale with two obsolete brown, very small streaks at the base; on the sides of the front part of back some scales black-edged, forming blackish spots, and more or less confluent behind into a very narrow, undulated line; under parts entirely white. Length of cleft of mouth  $\frac{1}{2}$ "; length of trunk 9"; length of tail 4".

Page 139. CÆLOPELTIS LACERTINA.

p. Adult. Mogador.

Page 141. PSAMMODYNASTES PULVERULENTUS.

k, l. Adult. India. Presented by Captain Stafford.

I have since convinced myself that four of the specimens mentioned as a variety (p. 141) form a really distinct species, differing from *Ps. pulverulentus* in the structure of the chin-shields. I call this second species of *Psammodynastes* *Ps. pictus*, and it may prove to be a peculiar form from Borneo.

2. PSAMMODYNASTES PICTUS.

The first three pairs of lower labials very large, without chin-shields between; forehead and crown with symmetrical, dark purple markings; occipitals reddish white; back dark purple colour with pairs of reddish-white spots; on each side of back a reddish-white band.

a. Borneo. Presented by Capt. Sir Edward Belcher.

b. Borneo. Presented by Capt. Sir Edward Belcher.

c. India. From the Collection of the Zoological Society.

d. India. From the Collection of the Zoological Society.

*Description*.—Habit more slender than in *Ps. pulverulentus*; head moderate, distinct from neck, with flat crown, and with swollen front part of the lips; tail moderate, not distinct from

trunk, tapering. Rostral shield rounded above, just reaching the surface of forehead; anterior frontals much smaller than posterior ones, all with convex hinder edge; vertical very narrow and elongate, with concave lateral edges; superciliaries much broader and larger, spheroid, projecting over the eye; occipitals moderate, rounded behind; one nasal, pierced by the nostril; one loreal; one larger anterior ocular, with a very small one below; *three posterior oculars*; eight to ten temporal shields, two of which are in contact with the oculars; eight upper labials, the third, fourth and fifth of which come into the orbit; the sixth and seventh are much larger than the others, and sometimes united. The first pair of the lower labials forms together a suture behind the medial one, and the same is the case with the second and third pair, thus suppressing the chin-shields; there is a pair of narrow chin-shields only behind the suture of the third labial pair. Scales rhomboid, in seventeen rows; anal entire. Dentition as in *Ps. pulverulentus*. Head above reddish white, with symmetrical dark purple markings on the forehead and crown; occipitals only a little spotted; immediately behind the occipitals commences a broad dark purple band, occupying the whole neck and the medial part of back, reaching to the tip of tail, and interrupted by pairs of reddish-white rounded spots, becoming obsolete towards the middle of the length; on each side of this dark band is a narrower reddish-white streak, beginning from the back edge of eye and ending on the tail; the sides are irregularly darker variegated, and there is a dark streak from the tip of the snout through the eye to the angle of mouth; belly white, with small triangular black spots, the lateral of which are larger and situated in a line. Length of cleft of mouth  $\frac{3}{4}$ "; length of tail 4"; total length 17".

Page 142. *DASYPELTIS SCABRA*.

*i.* Adult. Africa. From Mr. Jamrach's Collection.

Page 156. *DRYOPHIS ACUMINATA*.

Add to the synonymy: *Dryophis vittatus*, Girard, in *U. S. Naval Astron. Exped.* p. 211. pl. 36.

Page 171. *DIPSAS FUSCA*.

*h.* Young. Australia. Presented by Sir J. Richardson.

Page 180. *LEPTOGNATHUS CATESBYI*.

*Variety*: Spots black, and so large as nearly to suppress the white interspaces.

*g.* Adult. Guayaquil. From Mr. Fraser's Collection.

## Page 191. OXYRHOPUS PETOLARIUS. Add:

Var. H. *Oxyrhopus sebæ*, *Dum. & Bibr.* p. 1036. Scales of the vertebral series rather larger.

p. Adult. Guayaquil. From Mr. Fraser's Collection.

## Page 194.

Genus ISOSCELIS is to be erased, *Isoscelis maculata* being identical with *Rhabdosoma maculatum* (p. 241).

Instead of ISOSCELIS add:

9. TETRAGONOSOMA. Two nasals, nostril between; no loreal; one anterior, two posterior oculars; scales smooth, moderately imbricate, in seventeen rows; ventral plates keeled. Pinang.

## Page 204. Instead of ISOSCELIS add:

9. TETRAGONOSOMA, *Günther*.

*Lycodon* with moderate, quadrangular body; tail moderate; head depressed, with flat crown and moderate, obtuse muzzle; pupil elliptical, erect; two nasals, nostril between; loreal replaced by posterior frontal; one anterior, two posterior oculars. Scales smooth, moderately imbricate, in seventeen rows; those of the back equal to the others. Ventral plates and subcaudals keeled. Anal entire; subcaudals two-rowed. Pinang.

*Lycodon*, sp., *Cantor, Catal. Mal. Rept.* p. 70.

## 1. TETRAGONOSOMA EFFRENE.

*Lycodon effrænis*, *Cantor, l. c.* pl. 40. f. 2 (head).

Dusky blackish brown, with broad distant white (in spirits) rings; head above on each side with a whitish streak.

Original specimen of Dr. Cantor's description in the Collection of the East India Company.

## Page 207. OPHITES SUBCINCTUS.

- b. Adult. East Indies. From the Collection of the Zoological Society.—White bands very obsolete.

## ERRATA.

Page 41, line 15, *read* getulus *instead of* gætulus.

- „ 62, “*b. Species allied to T. viperinus*” *is to be erased.*
- „ 63, *insert before* TROP. HYDRUS, “*b. Species allied to T. hydrus.*”
- „ 92, line 8, *read* CALLICEPHALUS *instead of* CALICEPHALUS.
- „ 100, *read* South America *for each* North America.
- „ 104, *read* CAUDOLINEATUS *for* CAUDÆLINEATUS.
- „ 110, *read* HEXAHONOTUS *for* HEXANOTUS.
- „ 209, *read* ELAPIDÆ *for* ELAPSIDÆ.
- „ 209, 211, *read* DIEMANSIA *for* DEMANSIA.
- „ 210, *read* VERMICELLA *for* VERMICALLA.



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## APPENDIX (2.)

TO THE

*Catalogue of the specimens of Snakes in the Collection of the British Museum. First Part* (CROTALIDÆ, VIPERIDÆ, HYDRIDÆ and BOIDÆ), by Dr. J. E. GRAY. London, 1849.

THE object in preparing the present Appendix has been to give an account of the specimens in the Collection of the British Museum collected since the aforesaid Catalogue was published, and belonging to the families CROTALIDÆ, VIPERIDÆ, HYDRIDÆ and BOIDÆ.

With this Appendix, the Catalogue of the whole Collection of Snakes is finished: the number of specimens given—

In the First Part is .....	580
„ Appendix (2.) .....	386
„ Second Part with Appendix. . . .	3023

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Total sum 3989

## Page 5. CRASPEDOCEPHALUS BRASILIENSIS.

Bothrops iaraçaca, *Dum. & Bibr.* ix. p. 1509.

- a. Adult. Argentine Republic. Presented by the Zoological Society.
- b. Large specimen. South America. From the Haslar Collection.
- c. Half-grown. Brazil. From M. Parzudaki's Collection.
- d. Half-grown. America. From the Haslar Collection.
- e. Adult. America.

## Page 5. CRASPEDOCEPHALUS LANCEOLATUS.

Bothrops lanceolatus, *Dum. & Bibr.* ix. p. 1505.

- a. Adult. America.
- b. Adult: bad state. America. Presented by the Zoological Society.
- c. Half-grown. St. Lucia. Presented by the Zoological Society.
- d. Large specimen. Guadaloupe. From M. Parzudaki's Collection.

- e.* Half-grown. America. From Mr. Warwick's Collection.
- f.* Half-grown. America. From the Haslar Collection.
- g.* Half-grown. Martinique.

Page 6. CRASPEDOCEPHALUS ATROX.

*Bothrops atrox*, *Dum. & Bibr.* ix. p. 1507.

- a.* Adult. Rio Janeiro. From the Haslar Collection.
- b.* Adult. Demerara. From Mr. Snellgrove's Collection.
- c.* Head of an adult. Demerara. From Mr. Snellgrove's Collection.
- d.* Adult. Barbice.
- e.* Adult : not good state. South America. From Mr. Mather's Collection.
- f.* Adult. America. Presented by the Zoological Society.
- g.* Some half-grown specimens. Barbice.
- h.* Young. America.
- i.* Young. America.
- k.* Half-grown. Para. From Mr. Stevens's Collection.
- l.* Half-grown. Mexico. From Mr. Warwick's Collection.

Variety : "leucurus," *Dum. & Bibr.* p. 1508.

- m.* Half-grown. Guayaquil. From Mr. Fraser's Collection.

Variety ? seven upper labials ; tip of tail white.

- n.* Adult. Honduras.

Page 8. TRIMESURUS VIRIDIS.

*Bothrops viridis*, *Dum. & Bibr.* ix. p. 1513.

- a.* Adult. Java. From M. Parzudaki's Collection.
- b.* Adult. India. Presented by Dr. J. Hooker.
- c.* Adult. India.
- d.* Adult. Hong Kong. Presented by J. C. Bowring, Esq.
- e.* Adult. India. Presented by Captain Stafford.
- f.* Adult. China. From Mr. Cuming's Collection.

Page 9. TRIMESURUS MACULATUS.

- a.* Adult. Nepal. Presented by B. H. Hodgson, Esq.
- b.* Adult : not good state. Bengal. Presented by the Zoological Society.
- c.* Half-grown. Sikkim. Presented by Dr. J. Hooker.

Page 10. TRIMESURUS SUMATRANUS.

*Tropidolæmus wagleri*, *Dum. & Bibr.* ix. p. 1525.

- a.* Adult. India. Presented by the Zoological Society.
- b-e.* Adult. India. Presented by the East India Company.



## Page 12. MEGÆRA TRIGONOCEPHALA.

*Bothrops nigromarginatus*, *Dum. & Bibr.* ix. p. 1515.

- a. Adult. Ceylon. From the Haslar Collection.
- b. Adult. Ceylon. From Mr. Cuming's Collection.

## Page 15. TRIGONOCEPHALUS HYPNALE.

Id. *Dum. & Bibr.* p. 1498.

- a. Adult. Ceylon. From Mr. Cuming's Collection.
- b. Adult. Ceylon. From Mr. Cuming's Collection.
- c, d. Adult. East Indies.
- e-g. Adult. East Indies.
- h. Adult. East Indies.
- i. Young. East Indies. Presented by the Zoological Society.
- k. Adult. Ceylon. Presented by Sir J. Banks.

## Page 16. CENOCHRIS PISCIVORUS.

*Trigonocephalus piscivorus*, *Dum. & Bibr.* p. 1491. *Toxicophis pugnax*, *Baird & Girard, Catal.* p. 20.

- a. Skin of an adult in spirits. Texas. From Mr. Cuming's Collection as *Toxicophis pugnax*.
- b. Adult. Louisiana.

## Page 17. CROTALOPHORUS MILIARIUS.

*Crotalus miliarius*, *Dum. & Bibr.* p. 1477.

- a. Adult. Mexico. From M. Parzudaki's Collection.
- b. Young. Mexico. From M. Parzudaki's Collection.

## Page 20. CROTALUS HORRIDUS.

*Crotalus horridus*, *Dum. & Bibr.* p. 1472.

- a. Half-grown. Mexico. From M. Parzudaki's Collection.
- b, c. Young, and head of an adult. Barbice.
- d. Adult. America. Presented by the Zoological Society.
- e. Young. America. Presented by the Zoological Society.
- f. Half-grown: very bad state. North-west Coast of America. Presented by Lieut. Wood.

## Page 23. DABOIA ELEGANS.

*Echidna elegans*, *Dum. & Bibr.* p. 1435.

- a. Young. Ceylon. From Mr. Cuming's Collection.
- b. Adult. India. From the Haslar Collection.
- c. Adult. India. Presented by W. Masters, Esq.
- d. Half-grown. Ceylon. Presented by — Ferguson, Esq.

## Page 24. DABOIA XANTHINA.

- a.* Large specimen. Xanthus. Presented by the Zoological Society.

## Page 25. CLOTHO NASICORNIS.

*Vipera hexacera*, *Dum. & Bibr.* p. 1416.

- a.* Adult. Africa. Presented by the Zoological Society.  
*b.* Half-grown. West Africa. From Mr. Rich's Collection.

## Page 26. BITIS ARIETANS.

*Echidna arietans*, *Dum. & Bibr.* p. 1425.

- a.* Half-grown. West Africa. From Mr. Argent's Collection.  
*b.* Large specimen. Port Natal. Presented by the Rev. H. Calloway.  
*c, d.* Adult. Port Natal. Presented by the Rev. H. Calloway.  
*e.* Adult. West Africa. From Mr. Rich's Collection.  
*f.* Half-grown. Angola. From Mr. Rich's Collection.

## Page 26. BITIS ATROPOS.

*Echidna atropos*, *Dum. & Bibr.* p. 1432.

- a.* Half-grown. Cape. Presented by Dr. Lee.

## Page 27. BITIS MAURITANICA.

*Echidna mauritanica*, *Dum. & Bibr.* p. 1431.

- a.* Adult. Algiers. From M. Parzudaki's Collection.

## Page 28. CERASTES HASSELQUISTII.

*Cerastes ægyptiacus*, *Dum. & Bibr.* p. 1440.

- a.* Adult. Africa. From M. Parzudaki's Collection.  
*b.* Young. Sine patria.

## Page 29. TOXICOA ARENICOLA.

*Echis frenata*, *Dum. & Bibr.* p. 1449.

- a.* Adult. Africa.  
*b.* Adult. Barbary. From M. Parzudaki's Collection as *Echis carinata*.

## Page 29. ECHIS CARINATA.

*Echis carinata*, *Dum. & Bibr.* p. 1448.

- a.* Adult. India.

## Page 30. VIPERA ASPIS.

Id. *Dum. & Bibr.* p. 1408.

- a.* Adult. Alps. Presented by the Rev. S. W. King.
- b.* Adult. Europe. From M. Parzudaki's Collection.

## Page 31. PELIAS BERUS.

*Pelias berus*, *Dum. & Bibr.* p. 1595.

*A.* Var. *Prester*.

- a.* Large specimen. Rauhe Alp, Germany. Presented by Dr. A. Günther. Uniform black.

*B.* Var. *Chersea*.

- b.* Adult. Scotland. Presented by J. Middleton, Esq.
- c.* Half-grown. Europe.
- d.* Adult. Europe. Dark variety.
- e.* Adult. France. From M. Parzudaki's Collection.

## Page 33. SEPEDON HÆMACHATES.

Id. *Dum. & Bibr.* p. 1259.

- a, b.* Adult. Africa. From the Haslar Collection.
- c.* Adult. Africa. From the Haslar Collection.
- d.* Adult. Africa. Presented by the College of Surgeons.

## Page 33. CAUSUS RHOMBEATUS.

Id. *Dum. & Bibr.* p. 1265.

- a.* Adult. Africa. From Mr. Argent's Collection.
- b.* Adult. Africa. From the Leyden Museum.
- c.* Half-grown. Africa.
- d, e.* Adult. Africa. From Mr. Bartlett's Collection.
- f.* Adult. West Africa. From Mr. Rich's Collection.
- g.* Adult. West Africa. From Mr. Raddon's Collection.
- h.* Half-grown. Gambia. Presented by the Earl of Derby.
- i.* Adult. South Africa. From M. Parzudaki's Collection.
- k.* Adult. South Africa.
- l, m.* Adult. South Africa. From Mr. Jamrach's Collection.
- n.* Adult. South Africa. From Mr. Argent's Collection.
- o.* Large specimen. Port Natal. Presented by the Rev. H. Cal-  
loway.
- p.* Adult. West Africa. From Mr. Rich's Collection.
- q, r.* Adult and young. South Africa.
- s.* Young. Gold Coast. Presented by W. F. Evans, Esq.
- t.* Half-grown. Africa. From Mr. Argent's Collection.

- u.* Young. Gambia. Presented by T. Mitchell, Esq.
- v.* Adult. Africa. From Mr. Argent's Collection.
- w.* Young. Gold Coast. Presented by W. F. Evans, Esq.

## Page 34. ACANTHOPHIS ANTARCTICA.

*Acanthophis cerastinus*, *Dum. & Bibr.* p. 1389.

- a.* Adult. Australia. From the Haslar Collection.
- b.* Half-grown. Australia. From the Haslar Collection.

## Page 41. PELAMIS BICOLOR.

*Id.* *Dum. & Bibr.* p. 1335.

- a.* Adult. Sumatra. From M. Parzudaki's Collection.
- b.* Half-grown. Australia. Presented by J. Baines, Esq.
- c.* Half-grown. China.
- d.* Half-grown. India. From the Haslar Collection.
- e.* Half-grown. Gulf of Siam. Presented by the Lords of the Admiralty.
- f, g.* Half-grown. India. From the Haslar Collection.
- h.* Young. Ceylon. From Mr. Cuming's Collection.

## Page 43. PELAMIS ORNATA.

- a.* India. From Mr. Argent's Collection.

## Page 44. LAPEMIS CURTA.

- a.* Adult. India. Presented by J. Kempe, Esq.
- b.* Half-grown. India. From Mr. Argent's Collection.

## Page 46. MICROCEPHALOPHIS GRACILIS.

*Hydrophis gracilis*, *Dum. & Bibr.* p. 1352.

- a.* Adult and half-grown. East Indies. Presented by the East India Company.

## Page 48. ENHYDRINA VALAKADYEN.

*Hydrophis schistosus*, *Dum. & Bibr.* p. 1344.

- a.* Adult. India. Presented by the Zoological Society.
- b.* Adult. Madras. Presented by J. C. Jerdon, Esq.
- c.* Adult. India. Presented by W. Masters, Esq.

## Page 50. HYDROPHIS OBSCURA.

- a.* Half-grown. India. From the Haslar Collection.



Page 50. *HYDROPHIS LINDSAYII*.

- a.* Adult. India. From the Haslar Collection.

Page 51. *HYDROPHIS NIGROCINCTA*.

*Id. Dum. & Bibr. p. 1350.*

- a.* Half-grown. India.  
*b, c.* Half-grown: bad state. India. From the Haslar Collection.  
*d.* Half-grown. India.  
*e-g.* Adult, half-grown, and young. East Indies. Presented by the Hon. E.I. Company.

Page 52. *HYDROPHIS SUBCINCTA*.

- a.* Adult. India.  
*b.* Half-grown: bad state. New Guinea. Presented by J. B. Jukes, Esq.

Page 54. *HYDROPHIS SUBANNULATA*.

- a.* Half-grown. India.

Page 55. *HYDROPHIS CÆRULESCENS*.

- a.* Half-grown. India. Presented by the Zoological Society.

Page 56. *CHITULIA INORNATA*.

- a.* Adult. Australia. Presented by J. Baines, Esq.

Page 57. *KERILIA JERDONII*.

- a.* Adult. India? From the Haslar Collection.

Page 58. *HYDRUS MAJOR*.

*Hydrophis schizopholis, (Schmidt) Dum. & Bibr. p. 1357.*

- a.* Large specimen. Singapore. From the Haslar Collection.  
*b.* Adult. India. Presented by the Zoological Society.  
*c.* Adult. India. From the Haslar Collection.  
*d.* Adult. India. From the Haslar Collection.

Page 59. *PLATURUS LATICAUDATUS*.

*Platurus fasciatus, Dum. & Bibr. p. 1321; Fischer, See-schlangen, p. 28.*

Scales in nineteen to twenty-five rows.

Var. A. No azygos shield between the posterior frontals.

- a.* Adult. East Indies. Presented by the College of Surgeons.
- b.* Half-grown. New Guinea.
- c.* Half-grown. New Guinea. Presented by Capt. Sir E. Belcher.
- d.* Half-grown. India.
- e.* Adult. Bengal. Presented by General Hardwicke.
- f.* Half-grown. Gulf of Siam. Presented by the Lords of the Admiralty.
- g.* Adult. Van Diemen's Land. From the Haslar Collection.
- h.* Adult. Sine patria. From the Haslar Collection.
- i.* Adult. Sine patria. From the Museum of Economic Geology.

Var. B. An azygos shield between the posterior frontals.

- k, l.* Adult. India. Presented by Capt. Sir E. Belcher.
- m.* Half-grown. India. Presented by the College of Surgeons.
- n-p.* Half-grown. Fiji Islands. Presented by the Lords of the Admiralty.
- q.* Adult. Amboyna. Presented by Capt. Sir E. Belcher.
- r, s.* Half-grown. India. Presented by Capt. Sir E. Belcher.
- t.* Half-grown. Island of Sooloo. Presented by Capt. Sir E. Belcher.
- u, v.* Adult and half-grown. Island of Pines. Presented by the Lords of the Admiralty.
- w.* Adult. New Zealand. Presented by his Excellency Sir G. Grey.
- x.* Adult. India. Old Collection.
- y.* Adult: bad state. India.
- z-β.* Adult and half-grown. India. Presented by the Lords of the Admiralty.
- γ.* Adult: bleached. India. Old Collection.

Page 60. STEPHANOHYDRA FUSCA.

*Aipysurus fuliginosus*, *Dum. & Bibr.* p. 1327.

- a.* Adult. India.
- b.* Adult. New Guinea. Presented by Mrs. Stanley.

Page 61. CHERSYDRUS GRANULATUS.

*Chersydrus fasciatus*, *Dum. & Bibr.* p. 40.

- a, b.* Adult. Ceylon. From Mr. Cuming's Collection.
- c.* Adult. Java. From M. Parzudaki's Collection.

Page 61. CHERSYDRUS ANNULATUS.

Var. *Dum. & Bibr.* p. 43.

- a, b.* Adult. East Indies. Presented by the Hon. E.I. Company.

## Page 62. ACROCHORDUS JAVANICUS.

Id. *Dum. & Bibr.* p. 34.

- a. Some specimens. East Indies. Presented by the Hon. E.I. Company.
- b. Many specimens. East Indies. Presented by the Hon. E.I. Company.

## Page 64. CERBERUS CINEREUS.

*Cerberus boæformis*, *Dum. & Bibr.* vii. p. 978.

- a. Adult. East Indies. From M. Parzudaki's Collection.
- b. Adult. East Indies.
- c. Adult. East Indies. From the Haslar Collection.
- d-g. Adult and half-grown. East Indies. Presented by the Hon. E.I. Company.

## Page 66. FERANIA SIEBOLDII.

*Trigonurus sieboldii*, *Dum. & Bibr.* vii. p. 96.

- a. Adult. India. From Mr. Argent's Collection.

## Page 67. HOMALOPSIS BUCCATA.

Id. *Dum. & Bibr.* p. 969.

- a. Half-grown. East Indies. From the Haslar Collection.
- b. Half-grown. East Indies. From the Haslar Collection.
- c. Adult. East Indies. From the Haslar Collection.
- d-g. Adult and half-grown. East Indies. Presented by the Hon. E.I. Company.

## Page 69. URANOPS ANGULATUS.

*Helicops angulatus*, *Dum. & Bibr.*

- a. Adult. America. From Mr. Bartlett's Collection.
- b. Young. Amazon. From Mr. Stevens's Collection.
- c. Adult. Berbice.
- d. Adult. Berbice.
- e-g. Adult and half-grown. Demerara. From Mr. Snellgrove's Collection.
- h. Adult. Amazon. From Mr. Stevens's Collection.
- i. Young. Amazon. From Mr. Stevens's Collection.
- k. Adult. America.
- l. Adult. America. From Mr. Mather's Collection.
- m, n. Adult. Demerara. From Mr. Snellgrove's Collection.

## Page 70. TROPIDOPHIS SCHISTOSUS.

*Tropidonotus schistosus*, *Dum. & Bibr.*

- a.* Adult. Ceylon. From Mr. Stevens's Collection.
- b.* Half-grown. India. From M. Parzudaki's Collection.
- c.* Adult. Ceylon. From Mr. Stevens's Collection.
- d.* Half-grown. Hong Kong. Presented by J. C. Bowring, Esq.
- e.* Young. East Indies. From Mr. Argent's Collection.
- f.* Young. East Indies.
- g.* Adult. East Indies. Presented by the Zoological Society.
- h.* Adult. East Indies.
- i.* Adult. East Indies. From Mr. Warwick's Collection.
- k.* Adult: bleached. East Indies. Old Collection.

## Page 70. MYRON RICHARDSONII.

- a.* Half-grown. Port Essington.

## Page 71. HELICOPS CARINICAUDUS.

*Id. Dum. & Bibr.*

- a.* Adult. S. America. Presented by W. F. Evans, Esq.
- b.* Pregnant female. S. America. Presented by W. F. Evans, Esq.
- c.* Adult. Para. From Mr. Stevens's Collection.
- d.* Young. S. America. Presented by W. F. Evans, Esq.
- e, f.* Young. Para. Presented by R. Graham, Esq.

## Page 71. HELICOPS LEPRIEURII.

*Id. Dum. & Bibr. p. 750.*

- a.* Adult. Cayenne. From M. Parzudaki's Collection.
- b.* Adult. Cayenne.

## Page 72. HYPsirrhina AËR.

*Hypsirrhina enhydris*, *Dum. & Bibr. p. 947.*

- a.* Adult. India. Presented by W. Masters, Esq.

## Page 73. HYPsirrhina BILINEATA.

- a.* Adult. India. Presented by the Zoological Society.
- b.* Adult. India. Presented by W. Masters, Esq.
- c-f.* Half-grown. India.
- g.* Adult. Hong Kong. Presented by J. C. Bowring, Esq.
- h.* Adult. India.



Page 74. *HYPSIRHINA BENNETTII*.

? *Hypsirhina maculata*, *Dum. & Bibr.* p. 950.

*a.* Adult. China.

Page 74. *FARANCIA FASCIATA*.

*Calopisma abacura*, *Dum. & Bibr.*

*a.* Adult. America. Presented by the College of Surgeons.

*b.* Young. America. Presented by Mrs. Drummond.

*c.* Young. N. America. Presented by Sir R. Murchison.

Page 75. *HYDROPS MARTII*.

*Hydrops martii*, *Dum. & Bibr.* vii. p. 484.

*a.* Half-grown. Surinam.

*b.* Half-grown. S. America. From the Haslar Collection.

*c.* Adult. S. America.

Page 75. *HYGINA FASCIATA*.

*a-c.* Adult. Berbice.

Page 76. *DIMADES PLICATILIS*.

*Calopisma plicatilis*, *Dum. & Bibr.*

*a.* Adult. Berbice.

*b.* Half-grown. Para. From Mr. Stevens's Collection.

Page 77. *FORDONIA UNICOLOR*.

*a.* Adult. India. From the Haslar Collection.

*b.* Adult. India. From the Haslar Collection.

*c.* Adult. India. From the Haslar Collection.

*d.* Adult. ? River Parana. From the Haslar Collection.

*e.* Some half-grown and adult specimens. East Indies. Presented by the Hon. E.I. Company.

Page 78. *ABASTOR ERYTHROGRAMMUS*.

*Calopisma erythrogrammum*, *Dum. & Bibr.* p. 337.

*a.* Half-grown. America.

*b.* Half-grown. America. Presented by Mrs. Philips.

*c.* Half-grown. America.

I consider the specimen referred by Dr. Gray to *Abastor erythrogrammus* as the type of a peculiar genus. In the system proposed by Dr. Gray in his Catalogue, it follows the genus

*Abastor*; in the system of the *Erpétologie générale* it is to be placed in the family of the "*Platyrrhiniens*," near *Eurostus*.

### 33a. ELAPOCEPHALUS, Günther.

Head indistinct, depressed; scales smooth, in fifteen rows; shields of crown nine, regular; anterior pair of frontals not separated by the nasals from the rostral; one nasal, no loreal; one anterior, two posterior oculars. Anal and subcaudals bifid. Two or three posterior maxillary teeth very long, strong, and grooved. America.

This genus differs from *Abastor* :

ABASTOR.	ELAPOCEPHALUS.
Scales in 19 rows.	Scales in 15 rows.
Teeth equal, smooth.	Posterior teeth grooved.

#### 1. ELAPOCEPHALUS TÆNIATUS.

Above with three black, broadly white-edged longitudinal bands.

*a.* Adult. America. Presented by the Zoological Society (see Dr. Gray's Catal. p. 78).

*Description of the specimen.*—Head with a remarkable similarity of structure to *Elaps*; eyes very small; rostral shield rather rounded behind, just reaching the surface of head; two pairs of moderate frontals, the front pair of which is in direct contact with the rostral shield, and not separated from it by the nasals; vertical five-sided, with elongate hinder part, with an acute posterior angle, with nearly parallel lateral edges, and with all sides nearly equal in length. Superciliary moderate; occipitals rather large and elongate, and somewhat forked behind; nasal pierced by the nostril, without any cleft, and replacing the loreal shield together with ante-ocular; anterior ocular hardly reaching the surface of crown; two posterior oculars; six upper labials, the second and third of which form the lower edge of orbit, the fourth, fifth and sixth being largest; three temporal shields in one single series, of nearly equal size, anterior one in contact with both oculars. Scales quite smooth, polished, large, rounded behind, in fifteen rows; body with very broad back; cleft of mouth short; series of maxillary teeth very short, three or four smaller ones in front, and then two very large grooved teeth. Crown and occiput brown; third, fourth and fifth upper labial shields yellowish; a yellowish collar; back with three black or brown, white-edged longitudinal streaks; belly and lower part

of the sides whitish, with some indistinct, scattered, small spots on the edge of belly. Length of cleft of mouth  $\frac{5}{8}$ "; breadth of head  $\frac{5}{8}$ "; length of tail 3"; total length 29".

There are, besides the above-mentioned generic differences, the following others between

<i>Abastor erythrogrammus</i>	and	<i>Elapocephalus tæniatus</i> .
Nasal shield with a cleft from the nostril.		Nasal shield without cleft.
Seven upper labials.		Six upper labials.
Third and fourth upper labial shield coming into the orbit.		Second and third upper labial shields coming into the orbit.
Belly with two or three punctated lines.		Belly nearly uniform.
Eye moderate.		Eye very small.

Page 79. *MIRALIA ALTERNANS*.

*Eurostus alternans*, *Dum. & Bibr.* p. 957.

- a.* Half-grown. Borneo. From Mr. Stevens's Collection. Exhibiting a single posterior ocular (doubtful).

Page 86. *MORELIA VARIEGATA*.

- a.* Half-grown. Australia. From the Haslar Collection.  
*b.* Large specimen. Moreton Bay. Presented by J. Macgillivray, Esq.  
*c.* Adult. Port Essington. Presented by the Earl of Derby.

Page 88. *PYTHON RETICULATUS*.

- a.* Half-grown. Borneo. Presented by Sir J. Brooke.  
*b.* Half-grown. Borneo.

Page 90. *HORTULIA SEBÆ*.

- a.* Half-grown. Senegal. From Mr. Jamrach's Collection.

Page 93. *LIASIS OLIVACEA*.

- a.* Adult. Australia. Presented by the Zoological Society.  
*b.* Skin of a very large specimen in spirits. North Australian Expedition. Presented by Dr. J. R. Elsey.

Page 94. *NARDOA GILBERTII*.

- a.* Adult. Australia. Presented by Sir J. Richardson.

## Page 94. EPICRATES ANGULIFER.

- a.* Half-grown. Caraccas. From M. Parzudaki's Collection.
- b.* Half-grown. West Indies. Presented by Colonel Reid.
- c.* Adult. Barbice.
- d.* Adult. America. Presented by the Zoological Society.
- e.* Half-grown. America. Presented by the Zoological Society.
- f.* Adult. America. From the Haslar Collection.

## Page 95. EPICRATES CENCHRIA.

- a.* Half-grown. Barbice.
- b.* Adult. Barbice.

## Page 96. CORALLUS HORTULANUS.

- a.* Adult. West Indies. Presented by Colonel Reid.
- b, c.* Half-grown. Granada. From the Haslar Collection.
- d.* Half-grown. Guiana. From M. Parzudaki's Collection.
- e, f.* Half-grown. West Indies. Presented by Colonel Reid.

## Page 99. SANZINIA MADAGASCARIENSIS.

- a.* Adult. Madagascar. From M. Parzudaki's Collection.

## Page 100. BOA CONSTRICTOR.

- a.* Adult. Cayenne. From M. Parzudaki's Collection.
- b.* Young. Trinidad.
- c.* Young. Mexico. From Mr. Warwick's Collection.
- d.* Half-grown. West Indies. Presented by Colonel Reid.
- e.* Adult. America.
- f.* Young. S. America. Presented by Lieut. Wood.
- g.* Large specimen. S. America. Presented by the Zoological Society.
- h.* Fœtus. S. America. From Mr. Frank's Collection.

## Page 101. BOA IMPERATOR.

- a.* Large specimen. Trinidad.
- b.* Large specimen. Trinidad.

## Page 102. EUNECTES MURINUS.

- a.* Half-grown. S. America. From the Haslar Collection.
- b.* Head of a large specimen. Barbice.
- c.* Half-grown. Guiana. From M. Parzudaki's Collection.



## Page 103. CHILABOTHRIUS INORNATUS.

- a.* Half-grown. West Indies. From Mr. Jamrach's Collection.
- b.* Skin of an adult in spirits. Jamaica. From Mr. Gosse's Collection.

## Page 104. UNGALIA MACULATA.

- a.* Half-grown. Guayaquil.
- b.* Adult. Jamaica. From Mr. Gosse's Collection.
- c.* Young: bad state. America.
- d.* Half-grown. America.

## Page 105. ENYGRUS BIBRONII.

- a.* Adult. America. Presented by Sir E. Belcher.
- b, c.* Adult and half-grown. Fiji Islands. Presented by the Lords of the Admiralty.
- d.* Adult. Fiji Islands. Presented by the Lords of the Admiralty.
- e.* Adult. San Christoval. From the Museum of Economic Geology.
- f.* Half-grown. San Christoval. From the Museum of Economic Geology.
- g.* Half-grown. San Christoval. From the Museum of Economic Geology.
- h.* Adult. Loyalty Island. Presented by Sir G. Grey.
- i.* Half-grown. Fiji Islands. Presented by the Lords of the Admiralty.
- k.* Half-grown. Fiji Islands. Presented by the Lords of the Admiralty.

*Var.* Above uniform brownish red, beneath whitish.

- l.* Half-grown. San Christoval. Presented by the Lords of the Admiralty.
- m.* Half-grown. San Christoval. From the Museum of Economic Geology.

## Page 108. GONGYLOPHIS CONICA.

- a.* Half-grown. India. Presented by W. Masters, Esq.
- b.* Adult. Malabar. From M. Parzudaki's Collection.

## Page 109. ERYX JACULUS.

- a.* Adult. Sine patria.
- b.* Adult. Xanthus. From the Haslar Collection.
- c.* Adult. Sine patria. Presented by the Zoological Society.
- d.* Skin in spirits. Sine patria. Presented by the Zoological Society.

Page 110. *ERYX THEBAICUS*.

*a.* Adult. India. From Mr. Clayton's Collection.

Page 110. *CLOTHONIA JOHNI*.

*a.* Large specimen. Malabar. From M. Parzudaki's Collection.

## Page 112.

\*\*\*\* *Nostrils between two nasal shields. Eyes between the superciliary shields and the upper edge of the labial shields, with anterior and posterior ocular scales. Calabarina.*

Calabarina, Gray, *Proc. Zool. Soc.* 1858.

*CALABARIA, Gray.*

Head small, short, rounded in front, the same size as the body. Muzzle depressed, rounded; labial shields flat,  $\frac{8-8}{9-9}$ ; the hinder small, front moderate; rostral shield high, large, triangular; frontal shields three pairs, band-like, a large parietal shield and two small subequal superciliary shields on each side, a narrow transverse band-like central shield behind, with small scale-like shields behind and on the side of it. Eyes surrounded by scales on the upper edges of the labial shields and the superciliary shields; one anterior and two smaller posterior ocular shields; a single small loreal shield. Pupil circular. Nostril lateral, between two small nasal shields. Body cylindrical. Scales broad, triangular, polished, rather sunken and subrugose in the centre. Ventral shields very numerous, band-like, transverse, about half as wide as the diameter of the body. Vent small, with a single preanal shield. Spurs large, distinct. Tail short, as thick as the body, blunt and rounded at the end. Subcaudal shields broad, band-like, one-rowed like the ventral shields.

Calabaria, Gray, *Proc. Zool. Soc.* 1858.

*CALABARIA FUSCA.*

Gray, *Proc. Zool. Soc.* 1858, p. 155. t. xiv.

Dark brown, some of the scales yellowish, scattered singly or in groups on the back and sides; ventral shields greyish; sides of the belly with a few unequal yellow spots.

*Hab.* Old Calabar.

Is this *Eryx Reinhardtii*, *Schlegel, Bijd. Genot. Nat. Act. Amst.* 1851, t. , from the Gold Coast?

## Page 112. CYLINDROPHIS RUFA.

- a.* Half-grown. Borneo. From Mr. Wallace's Collection.
- b, c.* Half-grown. Java. Presented by J. Bowring, Esq.
- d.* Adult. East Indies. Presented by the Zoological Society.
- e.* Adult. East Indies.
- f.* Adult. East Indies.
- g.* Adult. East Indies. Presented by Mrs. John Crosley.
- h.* Adult. Singapore.
- i.* Adult. Singapore. From Mr. Gardiner's Collection.
- k.* Adult. East Indies.
- l.* Adult. Ceylon.

## Page 114. TORTRIX SCYTALE.

- a.* Half-grown: bad state. America.
- b.* Some adult specimens. Demerara. From Mr. Snellgrove's Collection.
- c.* Adult. Demerara. From Mr. Snellgrove's Collection.
- d.* Large specimen. Demerara. From Mr. Snellgrove's Collection.
- e.* Adult. America. From the Haslar Collection.
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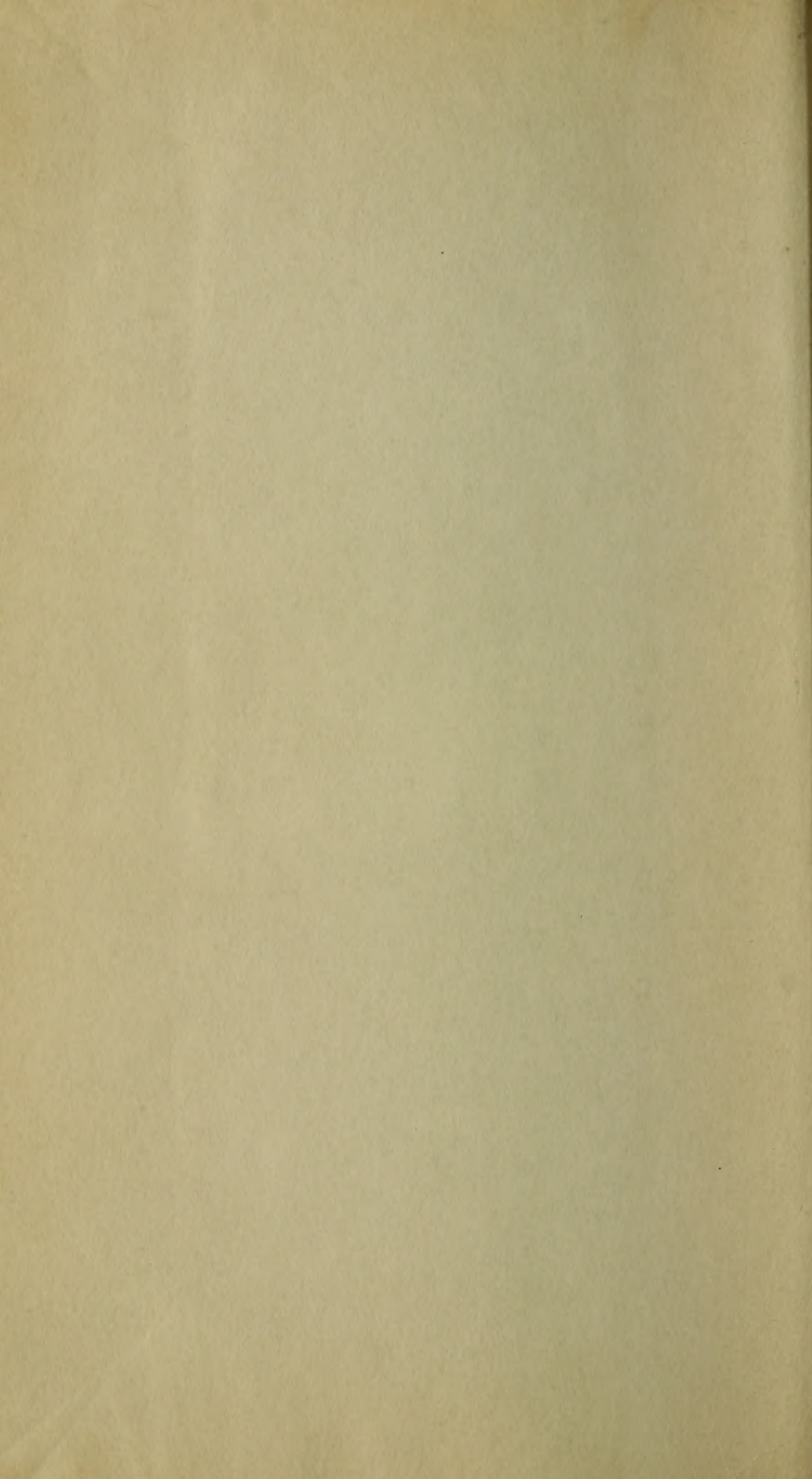
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